C2710-2

#880E***********5-DIGIT 20814
UNZ
#040526692 5#01PI10226 99
STATISTICAL REFERENCE INDEX
4520 EAST-WEST HWY SU 800
BETHESDA MD 20814

January 21, 1991

Pensions&Investments

The Newspaper of Corporate and Institutional Investing

$9 An Issue $135 A Year

1,000 Largest Funds

© Entire contents copyright 1991 by Crain Communications Inc. All rights reserved

January 21, 1991

Pensions&Investments

The Newspaper of Corporate and Institutional Investing

$9 An Issue $135 A Year

AT DEADLINE

War spurs investor shifts

The threat and then outbreak of fighting in the Persian Gulf prompted a flurry of investment activity by participants in defined contribution plans.

Fidelity Investments reported heavy participant queries in the days leading to the outbreak of war. On Jan. 16, investors were transferring from equities into money markets, but as markets opened Jan. 17, Fidelity reported above-average investment activity, with the majority of transfers going into equities.

2 funds buy city's issue

Trustees of the Philadelphia Municipal Pension Fund and of the Pennsylvania Public School Employes' Retirement System voted to buy a portion of the city's $150 million revenue anticipation note issue, crucial to its continued operation.

Each system committed to buy $37.5 million of the issue; local banks purchased the balance. The notes bear interest at the prime rate, now 9.5%. The city also will pay investors a fee equal to 2% of their commitments.

Trust changes managers

The AFL-CIO Staff Pension Fund, with about $100 million, has awarded a $30 million fixed-income account to ASB Capital Management. Funds came from Lehman Ark Management.

Bank to boost capabilities

Amalgamated Trust and Savings Bank hired Goldman, Sachs Asset Management as adviser to its expanding investment management services.

The bank, with $2 billion in trust assets, expects to offer added capabilities in quantitative, active fixed-income and equity management, said Robert J. Shank, executive vice president.

INSIDE

Talk, don't take a poll

Surveying directors for their views on corporate governance is a bad idea. Instead, institutional shareholders, management and directors need to come together in a dialogue to improve the process. Commentary, Page 14.

Growth stalled for Top 1,000 funds

Assets creep up to $1.876 trillion

By Trudy Ring

Plummeting U.S. and foreign stock markets constrained pension asset growth in the year ended Sept. 30, with the Top 1,000 sponsors' assets rising just more than 0.2% to $1.876 trillion from $1.871 trillion.

Defined contribution plans, with a slightly lower allocation to equities, fared somewhat better than defined benefit plans. Also, for the third consecutive year, defined benefit plan payments to retirees exceeded employer contributions.

These findings from *Pensions & Investments*' survey of the Top 1,000 pension funds indicate sponsors may step up contribution rates, consultants said, while adding a recovery in equity returns is likely.

The results of the latest survey are in sharp contrast to the one taken a year ago. In the year ended Sept. 30, 1989, assets of the Top 1,000 sponsors grew 18%, fueled by strong market returns.

In the current survey, defined benefit assets of the Top 1,000 sponsors dropped 1% to $1.466 trillion from $1.481 trillion. A benchmark portfolio reflecting the Top 1,000 average aggregate asset mix would have dropped 0.5%.

Defined contribution assets of the Top 1,000 sponsors rose 4.7%, to $391.4 billion from $374 billion. A benchmark portfolio for those assets would have risen 1.3%.

The total of defined benefit and defined contribution assets is slightly less than the overall total because some sponsors did not provide a breakout. Also, the Top 1,000 total is different from that featured on charts elsewhere in this issue because the number was updated after the charts were printed.

Among the Top 1,000, defined benefit plans had an average 43.6% in stocks, while defined contribution plans had a 39.8% equity allocation (including company and other stock). The Standard & Poor's 500 Stock Index lost 9.4% of its value in the year ended Sept. 30; the Wilshire 5000 lost 13.1%. The Morgan Stanley Capital International Europe Australia Far East Index dropped 27.4% for the 12 months.

Assets of the Top 200 sponsors

See **Top 200** *on page* 77

War puts new burden on investors

Institutions assess political risks

By Marcia Parker and Margaret Price

The Middle East fighting has made politics a weightier consideration for investments.

Watching international markets gyrate, U.S. investors are focusing more on the impact of political risk on their portfolios and the implications for many of the international companies in which they invest.

On a shorter-term perspective, developments in the Persian Gulf — especially early Allied successes — triggered market reactions. In the first day of trading since fighting began last week, some key markets, including Japan's, surged.

But certainly, not all money managers were rushing to react. Henderson International, London, was a seller in the U.S. market and not a buyer in other markets,

See **Mideast** *on page* 77

The Mideast fighting has put the problem of risk in a whole new light for U.S. international investors.

Xerox cash-balance plan a coup in timing

By Margaret Price

STAMFORD, Conn. — A switch to a cash-balance plan from primarily a profit-sharing plan one year ago proved timely for Xerox Corp., allowing employees to avoid the tumult of the stock market.

Although equity prices dropped — the Standard & Poor's 500 Stock Index was down 3.2% for the year — Xerox employees' retirement accounts grew for the year by a guaranteed amount, and received a guaranteed investment return.

Under the profit-sharing arrangement, employees' retirement accounts rose or fell with the markets and company profits.

As a result of the switch, Xerox's employees found their retirement accounts shielded on the downside, according to Patricia M. Nazemetz, Xerox's director-benefits.

But market timing was not the point when Xerox became one of the largest companies to adopt a cash-balance plan, in which employees receive retirement accounts that expand by defined amounts annually.

Instead, the Stamford, Conn.-based company, with $3.3 billion in employee benefit assets, was reacting to new rules for integrating pension and Social Security benefits that were included in the 1986 Tax Reform Act, with proposed specific rules issued by the Internal Revenue Service in May 1990. (Those rules, however, do not take effect until 1992.)

Xerox "felt we wouldn't pass (the new) integration requirements," said Ms. Nazemetz.

The new law said companies could continue to reduce their pension benefit through integration, but the result could not be to reduce the "gross" company pension benefit by more than half of what an employee would have received without such integration.

Rather than continuously change its pension integration with the whims of Washington, Xerox took the opportunity to review its entire pension structure — one that, according to Ms. Nazemetz, had been born during "a different business environment" at the company.

Unlike most large companies that have defined benefit plans, Xerox relied on the profit-sharing plan as its primary retirement vehicle.

See **Xerox** *on page 76*

NEWS DIGEST

The NWNL Cos. Inc., whose Minneapolis headquarters is pictured here, seized an opportunity to help shore up the regulatory capital of its core insurance subsidiary. Page 6.

A move to a cash-balance plan proved timely for Xerox Corp., allowing employees to avoid the tumult of the 1990 stock market. Page 1.

A new retirement savings plan for small business is expected to be introduced in the Senate. Page 3.

The California Public Employees' Retirement System withdrew 1991 shareholder proposals at three firms after reaching compromises with management. Page 4.

SPECIAL REPORT: THE TOP 1,000 FUNDS

Plummeting U.S. and foreign stock markets hold back pension asset growth, with the Top 1,000 sponsors' assets rising just more than 0.2% to $1.376 trillion. Page 1.

Interest in alternative investments seemed flat in 1990, marked by only small growth among the nation's top funds. Page 17.

No surprises were found in the choice of investment managers by the top pension funds, with only minor position changes affecting the latest ranking. Page 18.

INTERNATIONAL

The fighting in Iraq and Kuwait is putting politics and risk at the forefront for U.S. pension funds and investment managers with foreign holdings. Page 1.

REAL ESTATE

The Ameritech pension fund is suing its former director of real estate investments, alleging he breached his fiduciary duty. Page 3.

DEPARTMENTS

Classified 74
Commentary 14
Current accounts 73
Frontlines 8
Letters 14
Money movers 73
Opinion 12
P&I Indexes 8

Vol. 19, No. 2 — Pensions & Investments (ISSN 0273-5466) is published biweekly with a special edition in May by Crain Communications, Inc., 740 Rush St., Chicago, Ill. 60611-2590. Second class postage paid at Chicago, Ill. and at additional mailing offices. Postmaster: Send address changes to Pensions & Investments, Circulation Dept. 965 E. Jefferson, Detroit, Mich. 48207.

Cover by Avalon Studios

Manager questionnaires prepared

Questionnaires for *Pensions & Investments'* annual survey of the largest institutional investment management firms are being prepared. The forms will be mailed the first week in February and are due Feb. 25. The special issue will be published May 20. If you are not on the mailing list and wish to receive a form, contact Christine Philip, directory coordinator, (312) 649-5217.

Pan Am plans for survival

Pension liability negotiations key to airline's future

By Joel Chernoff

WASHINGTON — Pan Am Corp. hopes to shed its unfunded pension liabilities as one of the keys to its survival.

The question is: How good of a deal can the company swing with the Pension Benefit Guaranty Corp., the agency that would have to assume the pension debt?

Paying for its unfunded pension liabilities — estimated between $490 million and $800 million — long has been a drag on the bankrupt carrier's cash flow. The company has time and again deferred pension payments and now is in default on its most recent $53 million funding waiver.

In addition, the liabilities have served as an albatross around Pan Am's neck in past efforts to sell or merge the company. For example, both AMR Corp. and NWA Corp. have scrutinized Pan Am's books and were put off by the company's pension debt, Pan Am officials acknowledged.

Pan Am's Jan. 8 filing for protection from creditors under Chapter 11 of the Federal Bankruptcy Code clearly placed the lion's share of the blame on "external events beyond our control," including terrorist acts, soaring jet fuel prices stemming from the Persian Gulf crisis and a deteriorating economy.

But the airline holding company, whose three subsidiaries are Pan American World Airways, Pan Am Express and the Pan Am Shuttle, also said it hopes to restructure its debt obligations — including negotiating a settlement of its unfunded pension liabilities.

Any settlement of those obligations, however, likely would involve the termination of Pan American World Airways' three underfunded pension plans. Pan Am had $622 million in pension assets as of Sept. 30.

The company lists its contingent liability to the PBGC at $490 million, but the agency says Pan Am would owe $800 million if the plans were terminated, based on a 7.25% interest rate. Of the $800 million figure, three-quarters involve unfunded benefits guaranteed by the PBGC, while the remaining $200 million covers non-guaranteed benefits.

The PBGC also holds a security interest on 100% of the stock of the Pan Am Shuttle. The stock was offered as collateral on the $53 million funding waiver granted in September; Pan Am went into default on its agreement when it failed to pay back $30

See **Pan Am** *on page 76*

White goes to Rockefeller

Unisys executive joins foundation

NEW YORK — David White, the former director-capital management and trust investments at Unisys Corp., is the new treasurer of the more than $2 billion Rockefeller Foundation in New York.

Mr. White is replacing Jack Meyer, who left the post in June to become president of Harvard Management Co., Harvard University's investment arm (*Pensions & Investments*, June 11).

Mr. White, considered by colleagues in the industry to be an innovator, joined Unisys in 1986 after it was created from the merger of Burroughs Corp. and Sperry Corp. Mr. White had been Burroughs' director-trust investments since 1983. He was then appointed head of the combined funds.

At Unisys, he oversaw about $5.4 billion of employee benefit assets, including $2.8 billion in a defined benefit plan plan, $1.7 billion in a 401(k) plan and $600 million covering the company's foreign employees.

He is joining a foundation that has been an innovative institutional investor.

Rockefeller has employed short-selling programs, enhanced international index funds, private placements, tactical asset allocation, index arbitrage, forward conversions, international warrants and risk arbitrage. The fund also was an early investor in distressed securities, leveraged buyouts and emerging international markets.

Mr. White was replaced by Charles A. Service, who worked closely with Mr. White as Unisys' director of investment programs. Mr. Service doesn't expect to make any significant changes in the pension fund.

David White is the new treasurer at the $2 billion

He joined Unisys in 1983, coming from Burroughs with Mr. White. Mr. Service worked previously for Ford Motor Co. and Standard & Poor's Corp. ■

2 more execs leave Wilshire

By Steve Hemmerick

SANTA MONICA, Calif. — The exodus hasn't stopped at Wilshire Associates.

Two more senior executives have resigned amid claims Wilshire is facing a difficult management situation and lacks "aggressiveness" in its international consulting division.

The most recent executive to resign is Robert L. Garvy, a board director, senior vice president and head of the asset management services division. He resigned effective Dec. 31 and now is president and chief executive officer of Investment Index Technologies, a money management subsidiary of Prudential Insurance Co. of America.

Earlier, Lawrence E. Davanzo announced his resignation, effective Jan. 31. Mr. Davanzo is a board director, senior vice president, and head of international consulting at Wilshire. He plans to seek partners to open his own consulting firm that has a mix of domestic and international clients.

The resignations of Messrs. Garvy and Davanzo follow those of Dale Stevens and Douglas LeBon, both former vice presidents and board directors who resigned last year.

Robert L. Garvy said Wilshire faces a "difficult situation" in regard to top management.

Noting four board members left Wilshire in the last few months, Mr. Garvy said Wilshire faces a "difficult situation" with regard to its top management.

Despite the exodus of personnel, Mr. Garvy noted Dennis Tito, Wilshire president, is a survivor and has faced difficult situations before.

All of the recently departing executives except Mr. LeBon had 12 or more years at Wilshire and were instrumental in its growth.

Mr. Tito rejects the idea Wilshire is facing a difficult management situation. While both Mr. Garvy and Mr. Davanzo have made valuable contributions to Wilshire, neither served in a critical role, he said, adding no one at Wilshire reported to Mr. Davanzo or Mr. Garvy.

Had either man left 10 years ago, it would have been a major

See **Wilshire** *on page 75*

CONTENTS

Top 1,000 funds
- Total assets 17
- DB asset mix 32
- DC asset mix 32

Top 200 funds
- DB asset mix 18
- DC mix 18
- Profile statistics 17
- Fund rankings 20
- Profiles begin 28
- Largest corporate 31
- Largest public 31
- Largest miscellaneous 31
- Largest union 31
- Largest DB 32
- Largest DC 32
- DB internal mgmt. 34
- DC internal mgmt. 40
- Oil & gas 47
- DB indexed funds 42
- DC indexed funds 47
- Internal index funds 40
- Private placements 44
- LBOs 46
- DB assets overseas 54
- DC assets overseas 54
- GIC/BIC 58
- Equity real estate 58
- Mortgages 62
- Venture capital 65
- Dedicated 59
- Mortgage-backed securities 66
- Non-investment grade bonds 52
- DB asset mix by type 44
- DC asset mix by type 44

Funds 201-1,000
- Fund rankings 22
- DB asset mix by type 48
- DC asset mix by type 48

Romance continues with foreign markets

By Margaret Price

The Top 200 U.S. pension funds shelved market and economic worries and continued to increase foreign investments in the year ended Sept. 30, according to *Pensions & Investments* data.

The quest for diversification and — hopefully — higher returns spurred total international investments 16% to $45.7 billion by defined benefit plans and 2.7% to $5.47 billion by defined contribution plans during the period.

Indicative of the pace of international investing is the fact the $54 billion California Public Employee Retirement System was pouring "several hundred million dollars a month" into international equities, and in a little over a year has become the largest international investor among U.S. pension funds.

The increases were particularly impressive in light of faltering equities markets. For the year ended Sept. 30, the Morgan Stanley Capital International Europe Australia Far East Index plunged 27.4%. Accordingly, quite a few funds' overseas assets slid. But few if any funds reacted by vacating international markets. "Not to say some haven't, but we have not seen (funds) pulling money out" of the international arena, said Arthur McCain Jr., vice president-sponsor services, Inter[illegible] Research Corp., Stamford, Conn.

On the contrary, pension funds have demonstrated increasing comfort and familiarity with foreign investing, as illustrated by the increased expansions into regional and emerging markets and other targeted outlays.

For the year ended Sept. 30, international equities and bond holdings both gained in popularity. Among defined benefit plans, foreign equities posted an actual 6.1% rise to $34.7 billion. Adjusted for the impact of the declining world markets, the gain was 46%. While actual foreign equities holdings by defined contribution plans fell 2.5% to $5.022 billion, adjusted for the world market declines the figure represented a substantial 34% gain.

International bond investing also gained steam, although from a much lower base. The Top 200 defined benefit plans had slightly more than $10 billion invested as of Sept. 30, a 67% rise from the previous year's $6.048 billion, and 55% when adjusted for the returns from international markets. Defined contribution assets in inter-

See **Foreign** *on page 70*

Number of Top 200 funds using various strategies

	Defined benefit	Defined contribution
Equity index funds	112	46
Bond index funds	56	9
GICs/BICs	36	65
Dedicated/immunized bonds	33	3
Foreign equities	101	14
Foreign fixed income	44	5
Foreign other	7	1
Real estate equity	123	11
Mortgages	53	3
Mortgage-backed securities	69	12
Non-investment-grade bonds	21	na
Venture capital	68	1
Oil & gas	22	1
LBOs	26	1
Private placements	32	2

Funds sticking to beaten path

By Fred Williams

Interest in alternative investments such as oil and gas, venture capital, private placements and leveraged buy-outs among large pension plans seemed flat in 1990, according to the *Pensions & Investments* survey of the Top 200 pension funds.

While the total in each of these categories — except oil and gas — by the 10 defined benefit funds with the largest investments increased slightly in each case, the growth was not significant and represents only a small portion of total assets.

Investors and financial analysts believe large pension funds will continue to support some investments in venture capital and to some extent oil and gas, but they do not see leveraged buy-outs gaining much interest in the aftermath of 1990s economic slowdown and problems in the junk bond market.

Overall in alternative investments, the number of funds among the Top 200 investing in each and the total assets vs. the previous year were: venture capital, 69 funds with $5.02 billion, up 14% from 68 funds and $4.395 billion; private placements, 50 funds with $10.54 billion, up 0.2% vs. 45 funds with $10.52 billion; leveraged buy-outs, 27 funds at $6.49 billion, up 26% from 27 funds at $5.16 billion; and oil and gas, 21 funds with $945 million, up 12% from 19 funds at $844 million.

The total investment in venture capital by the 10 largest investors as of Sept. 30 was $2.5 billion compared with the 10 largest venture capital investors total of $2.4 billion a year earlier. Private placement investments dropped slightly totaling $8.7 billion vs. $9 billion for the previous year.

In the LBO area, the 10 largest investors held a total of $5.6 billion in the most recent survey compared with $4.5 billion a year earlier.

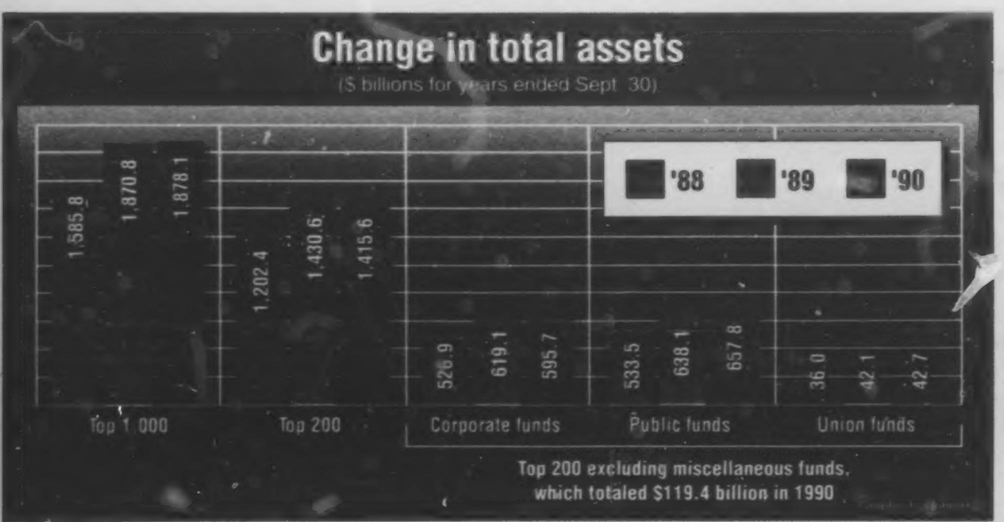
"I think the attraction of LBOs and venture capital in the past has been to enhance returns rather than diversify or make the portfolio more conservative," said Noel Feldman, investment analyst with Hewitt Associates, Santa Ana, Calif. "Today, most plan sponsors want to take the risk out of their portfolios rather than put it in.

"The difficulty with alternatives is timing. Plan sponsors are correct in taking risk out, but with most alternatives they require too much lead time to be effective. You must take the leap 12 to 18 months ahead of time or you won't get any benefit. It's a little difficult to time these investments with that much lead time in-

See **Alternatives** *on page 70*

Change in total assets

($ billions for years ended Sept. 30)



Top 200 excluding miscellaneous funds, which totaled $119.4 billion in 1990

Profile statistics at a glance

($ billions)

	1990	1989
Top 1,000 assets*	1,878.1	1,870.8
Defined benefit	1,467.2	1,480.8
Defined contribution	392.0	374.0
Top 200 assets*	1,415.6	1,430.6
Top 100 assets	1,182.5	1,198.2
Top 50 assets	924.8	940.0
Top 25 assets	678.6	690.1
Top 200 defined benefit	1,124.4	1,159.8
Top 200 defined contribution	272.6	265.3
Top 200 profit sharing	11.1	14.5
Top 200 401(k)/thrift	50.2	65.2
Top 200 defined benefit		
Internal management*	490.3	490.8
Equities	157.6	173.5
Fixed income	232.8	224.4
Short-term	38.9	39.8
Real estate equity	20.8	17.1
Other	24.9	22.9
Equity index funds	137.4	155.2
Internally managed	84.5	[illegible]
Bond index funds	66.3	55.4
Internally managed	25.5	16.4
Real estate equity	50.1	43.7
Mortgages	23.9	16.7
Mortgage-backed securities	60.4	60.7
GICs/BICs	4.9	3.9
International	45.7	39.4
Equity	34.7	32.7
Fixed income	10.1	6.1
Other	0.9	0.6
Venture capital	5.0	4.4
Dedicated/immunized bonds	26.6	34.1
Oil & gas	0.9	0.8
LBOs	5.7	4.5
Private placements	10.5	10.5
Non-investment-grade bonds	2.7	na
Contributions paid	31.1	30.7
Benefits paid	44.0	41.1
Top 200 defined contribution		
Internal management*	128.5	119.5
Equities	42.0	43.6
Fixed income	56.3	51.1
Short-term	15.8	13.6
Real estate equity	4.6	3.1
Other	6.8	7.4
Equity index funds	27.5	32.5
Internally managed	22.2	27.0
Bond index funds	0.7	0.3
Internally managed	0.0	0.0
Real estate equity	5.0	3.7
Mortgages	19.5	18.1
Mortgage-backed securities	5.4	2.4
GICs/BICs	34.7	36.0
International	5.4	5.3
Equity	5.0	5.1
Fixed income	0.4	0.2
Other	**	0.0
Venture capital	**	**
Dedicated/immunized bonds	0.2	**
Oil & gas	**	**
LBOs	0.8	0.7
Private placements	11.2	10.0
Contributions paid	9.1	9.2

*Total is greater because some funds did not provide a breakout.

**Less than $100 million.

How sponsor data were compiled

The information on employee benefit funds contained in this special report was compiled in several steps.

Questionnaires were sent to almost 1,500 fund sponsors in *Pensions & Investments*' data base. The largest 1,000 were identified from the completed questionnaires, follow-up telephone calls and a cross-check with information supplied by Money Market Directories Inc., Charlottesville, Va., publisher of the **1991 Money Market Directory of Pension Funds and Their Investment Managers**.

tion contained in the profiles of the Top 200 employee benefit funds was obtained from the completed questionnaires and from interviews with fund officials by the *P&I* editorial staff.

Where no information was available from the fund, figures were taken from the MMD.

Unless otherwise noted, the data reflect fund operations as of Sept. 30, 1990.

In cases where the fund supplied data considered too old, *P&I* estimated the asset growth based on one of the following methods: the most recent asset mix supplied by the fund; the asset mix reported in the 1991 Money Market Directory; or *P&I's* reported average asset mix for that particular type of fund, i.e. union, corporate or public. In some cases, the estimates were based on asset totals reported in the sponsor's most recent annual report.

In the tables accompanying the profiles, dollar amounts are rounded to the nearest million.

The asset mixes for the Top 200 and Bottom 800 funds represent the average of all reported allocations for the respective funds; the aggregate defined contribution asset mixes are based on the sponsor's largest plan only. The separate asset mixes for the components of the Top 200 and Bottom 800 universes were compiled in the same manner. ■

PBGC taking new fixed-income route

By Joel Chernoff

WASHINGTON — Before the quarter is out, the Pension Benefit Guaranty Corp. expects to hire fixed-income managers to run $2 billion in assets as part of a major overhaul of its investment strategy. New active equity hires are expected to be announced a couple of months thereafter.

The agency's $2.7 billion in assets represent prestige accounts for money managers. But it is the PBGC's novel fixed-income strategy that presents the greatest challenge.

"It's a cerebral piece of business," said Jess Yawitz, principal in St. Louis with National Investment Services of America Inc.

To protect itself from volatility of returns and a potential onslaught of claims from terminating pension plans, the PBGC is trying to match its assets with its liabilities and more closely resemble an insurance company investment structure.

The agency's new strategy, announced last fall, is to create a dollar-duration bond portfolio. A dollar-duration portfolio multiplies the duration of the liabilities — the measure in years of the change in the liabilities' value relative to a change in interest rates — by the amount of the liabilities.

Because the agency's liabilities exceed its deficit, the desired duration of the portfolio will have to exceed that of the agency's liabilities. In the PBGC's case, that will drive the duration of the portfolio to more than 15 years, compared with 8.5 years for the liabilities.

"We're sort of in the strange position of immunizing a deficit, which is not normal, which kind of puts us out in the thin air of long duration," Charles Evans, the PBGC's senior investment adviser, told interested bidders on the fixed-income contract last fall.

The agency's deficit officially is listed at $1 billion, but it promises to be much larger once agency officials close the books for the fiscal year ended Sept. 30. The deficit is expected to climb substantially because of a combination of investment losses and termination claims, including those for seven Eastern Air Lines Inc. plans.

Meanwhile, target allocations for bonds will be boosted to about 75% of total assets, from 55%,

See **PBGC** *on page 71*

Funds stay with first string

Minor jockeying only big change in manager line-up

By Fred Williams

J.P. Morgan Investment Management Inc., New York, maintained its position atop the list of money managers most used by the nation's largest defined benefit pension plans, according to the latest *Pensions & Investments* survey of the Top 200 pension plans.

The five money managers mentioned most often by large plan sponsors is essentially the same as the previous year, with the exception of Trust Co. of The West, which climbed to third overall from fifth.

J.P. Morgan received 68 mentions, while Wells Fargo Nikko Investment Advisors, San Francisco, finished second with 55 mentions.

As in the past two years, the top money managers are characterized by their sheer size. All are multiline companies offering a variety of investment approaches and products.

"I'm not surprised," said Phil Schneider, chairman of Wyatt Asset Services Inc., Chicago, about the managers receiving the most overall mentions by plan sponsors.

"The common thread is that these are firms with a broad mix of products and are well-established asset management firms," he said.

The only major shift among the top five most often mentioned managers in 1990 was the move by TCW to the third place from fifth. While TCW finished third overall, the Los Angeles investment management firm only made the top five in one asset-specific category, domestic real estate, where it ranked fifth with 21 mentions.

Tom Larkin, TCW president, said the results aren't surprising because "basically we offer 25 investment disciplines" ranging from traditional active equity and fixed income to oil and gas, bankrupt bonds, global, convertible securities and private placements.

"For us last year, bankrupt bonds (bonds of companies that have filed for Chapter 11 protection) or bonds of troubled companies were a big area, as well as high-yield bonds and the global area," said Mr. Larkin. "We are very spread out in terms of product mix."

He said TCW is "very bullish" for 1991 and looks for continued growth in such areas as international oil and gas investments, privatizations, cogeneration and investments involving Latin America.

"We think there will be continued significant interest in all these areas," he said.

P&I asked the Top 200 funds to list the managers they use to handle their retirement assets. If sponsors used a manager for more than one asset class, each mention counted in the managers' overall total. The managers' ranking in the asset classes, however, reflects the number of pension funds using them only in that class.

In addition to ranking tops in the overall classification, J.P. Morgan finished second in domestic fixed income with 24 mentions and fourth in the international manager class with 14 mentions.

Wells Fargo Nikko, which ranked second overall, also ranked in the top five in two other charts. For the third straight year it came in first among domestic equity managers, with 24 mentions, and fifth in domestic fixed income, with 11 mentions.

New to the top five domestic equity managers list is Rosenberg Institutional Equity Management, Orinda, Calif., which finished fifth with 15 mentions.

Marlis Fritz, partner at Rosenberg, said the firm, which has been in business since 1985, follows a "very disciplined investment process" involving fundamental analysis of relative values.

"We are a quantitative equity manager with an ambitious investment objective — to outperform a client-designated benchmark by at least four percentage points, and I think we have been successful," she said.

Ms. Fritz said plan sponsors find the approach attractive because "they are looking for a con-

See **Managers** *on page 71*

Top consultants

	Times mentioned
Frank Russell	20
Callan	16
SEI	14
Wilshire	12
Rogers, Casey	6
EAI	6

Top master trustee/custodians

	Times mentioned
Bankers Trust	32
Northern Trust	22
Boston Safe	19
State Street	19
Mellon Bank	12

Top global custodians

	Times mentioned
Chase Manhattan	17
Bankers Trust	15
Northern Trust	13
State Street	13
Boston Safe	11

Top managers overall

	Times mentioned
J.P. Morgan	68
Wells Fargo Nikko	55
TCW*	52
Prudential*	46
Equitable*	45

Top domestic equity managers

	Times mentioned
Wells Fargo Nikko	24
Alliance	22
Mellon*	22
Capital Guardian	19
Rosenberg Institutional	15

Top domestic bond managers

	Times mentioned
PIMCO	25
J.P. Morgan	24
Loomis, Sayles	12
Mellon*	12
Lincoln	11
Wells Fargo Nikko	11

Top international managers

(incl. equities, bonds, cash & other)

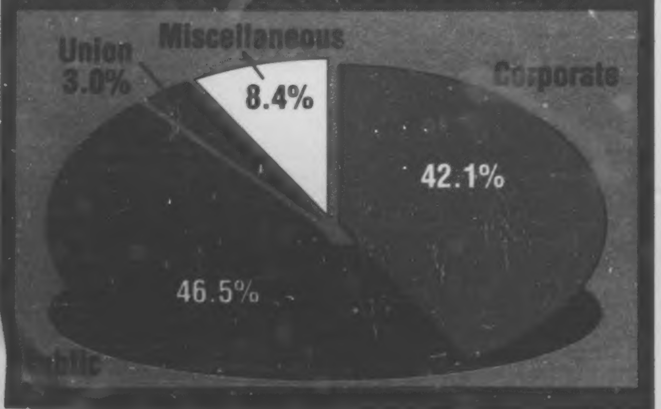
	Times mentioned
Capital Guardian	17
State Street	15
Baring International	15
J.P. Morgan	14
Nomura	13

Top domestic real estate managers

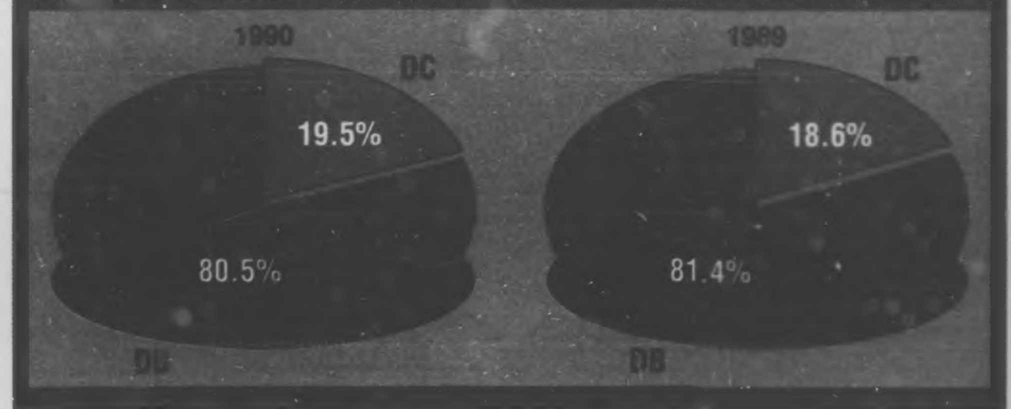
	Times mentioned
Equitable*	31
JMB	29
Prudential*	28
Aetna	24
TCW*	21

*Includes all named subsidiaries

Where the Top 200 assets are



Top 200 assets: defined benefit vs. defined contribution



Top 200 pension funds/sponsors

Assets in $ millions

1.	TIAA-CREF	83,100
2.	California Public Employees	54,000
3.	New York State & Local	43,737
4.	New York City	40,763
5.	AT&T	38,876
6.	General Motors	36,300
7.	California State Teachers	30,140
8.	General Electric	27,108
9.	New York State Teachers	26,689
10.	New Jersey	26,609
11.	IBM	25,000
12.	Texas Teachers	23,734
13.	Ford Motor	20,800
14.	Ohio Public Employees	20,595
15.	Florida State Board	19,268
16.	Wisconsin State Board	18,482
17.	Ohio State Teachers	18,200
18.	Du Pont	17,728
19.	North Carolina Retirement	17,289
20.	State of Michigan	17,268
21.	Pennsylvania Public School	17,268
22.	NYNEX	14,383
23.	BellSouth	14,125
24.	Bell Atlantic	13,943
25.	Ameritech	13,241
26.	Washington State Board	12,839
27.	University of California	12,471
28.	Minnesota State Board	12,098
29.	GTE	11,825
30.	Boeing	11,600
31.	Pacific Telesis	10,896
32.	Maryland State Retirement	10,761
33.	Virginia Retirement	10,687
34.	Los Angeles County	10,362
35.	Oregon Public Employes	9,900
36.	Georgia Teachers	9,871
37.	Rockwell International	9,715
38.	Pennsylvania State Employes	9,485
39.	Teamsters, Central States	9,398
40.	Teamsters, Western Conference	9,292
41.	Colorado Public Employees	9,195
42.	Eastman Kodak	9,000
43.	Alabama Retirement Systems	8,827
44.	USX	8,750
45.	United Nations	8,591
46.	Southwestern Bell	8,303
47.	Illinois Teachers	8,175
48	Tennessee Consolidated	8,148
49.	U S WEST	7,998
50.	Lockheed	7,963
51.	United Technologies	7,960
52.	Connecticut Trust Funds	7,902
53.	Exxon	7,838
54.	South Carolina Retirement	7,728
55.	Shell Oil	7,507
56.	Arizona State Retirement	7,234
57.	Sears, Roebuck	7,186
58.	Chevron	7,157
59.	McDonnell Douglas	7,023
60.	Philip Morris	6,983
61.	Federal Retirement Thrift	6,890
62.	Mass. Teachers/Employees	6,650
63.	Hughes Aircraft	6,300
64.	Texas Employees	6,242
65.	Procter & Gamble	6,078
66.	General Dynamics	6,069
67.	Prudential Insurance	5,856
68.	Missouri Public School	5,800
69.	Allied-Signal	5,770
70.	Westinghouse Electric	5,554
71.	Chrysler	5,096
72.	Iowa Public Employees	4,916
73.	United Mine Workers	4,759
74.	Mobil Oil	4,675
75.	Amoco	4,665
76.	Unisys	4,534
77.	Alaska State	4,430
78.	San Francisco City/County	4,331
79.	Mississippi Public Employees	4,319
80.	Illinois Municipal	4,239
81.	Caterpillar	4,221
82.	Pacific Gas & Electric	4,172
83.	Hawaii Employees	4,119
84.	Monsanto	4,055
85.	Dow Chemical	4,000
86.	United Airlines	4,000
87.	Delta Air Lines	3,977
88.	Illinois State Universities	3,959
89.	Detroit Retirement Systems	3,925
90.	Utah State Retirement	3,850
91.	American Airlines	3,800
92.	Kansas Public Employees	3,751
93.	Georgia Employees	3,750
94.	National Electrical Contractors	3,692
95.	Kentucky Teachers Retirement	3,678
96.	Chicago School	3,611
97.	Atlantic Richfield	3,575
98.	Los Angeles Fire & Police	3,459
99.	United Methodist Church	3,459
100.	Louisiana Teachers' Retirement	3,457
101.	Metropolitan Life	3,395
102.	RJR Nabisco	3,364
103.	Southern Co. Services	3,350
104.	Xerox	3,333
105.	Nevada Public Employees	3,308
106.	Northrop	3,304
107.	Kentucky Retirement Systems	3,300
108.	Martin Marietta	3,300
109.	Texaco	3,300
110.	Minnesota Mining & Mfg.	3,288
111.	ALCOA	3,270
112.	Consolidated Edison	3,257
113.	State Farm	3,240
114.	World Bank	3,171
115.	Indiana Public Employees	3,104
116.	Grumman	3,101
117.	Ohio Police & Firemen	3,101
118.	Bethlehem Steel	3,080
119.	Illinois State Board	3,045
120.	ITT	2,990
121.	Raytheon	2,982
122.	J.C. Penney	2,964
123.	Textron	2,961
124.	Honeywell	2,839
125.	Tennessee Valley Authority	2,834
126.	Ohio School Employees	2,824
127.	Tenneco	2,824
128.	TRW	2,783
129.	Aetna	2,758
130.	Mass. PRIM	2,700
131.	Southern Baptist	2,680
132.	International Paper	2,673
133.	Eli Lilly	2,670
134.	Los Angeles City	2,620
135.	Union Carbide	2,608
136.	Deere	2,450
137.	Phillips Petroleum	2,450
138.	Texas Municipal	2,400
139.	Boilermaker-Blacksmith	2,395
140.	Owens-Illinois	2,326
141.	Rhode Island Retirement System	2,322
142.	Presbyterian Church	2,300
143.	S. California Edison	2,300
144.	Texas County & District	2,297
145.	Trans World Airlines	2,282
146.	Halliburton	2,260
147.	BP America	2,235
148.	Louisiana State Employees	2,234
149.	Arkansas Teachers	2,216
150.	Abbott Laboratories	2,210
151.	Eastern Air Lines	2,150
152.	National Rural Electric Co-op	2,120
153.	Operating Engineers	2,114
154.	Oklahoma Teachers Retirement	2,097
155.	S. California UFCW	2,073
156.	Bakery & Confectionery Union	2,070
157.	Chicago Municipal	2,068
158.	Commonwealth Edison	2,029
159.	United Parcel Service	2,026
160.	Motorola	2,019
161.	PPG Industries	2,011
162.	Citibank	2,006
163.	Navistar	2,005
164.	Indiana State Teachers	2,000
165.	Armco	1,995
166.	New Mexico Educational	1,990
167.	Anheuser-Busch	1,986
168.	Travelers Insurance	1,980
169.	Hospital & Health Care	1,932
170.	New Mexico Public Employees	1,860
171.	American Stores	1,854
172.	Episcopal Church	1,850
173.	Los Angeles Water & Power	1,850
174.	Inland Steel	1,848
175.	American Electric Power	1,842
176.	Maine State Retirement	1,837
177.	Evangelical Lutheran	1,833
178.	FPL Group	1,823
179.	Cooper Industries	1,740
180.	Delaware State	1,733
181.	S. New England Telephone	1,729
182.	Eaton	1,715
183.	CIGNA	1,711
184.	NCR	1,700
185.	Sheet Metal Workers	1,686
186.	New York Life	1,674
187.	Digital Equipment	1,652
188.	Johnson & Johnson	1,650
189.	I.A.M. National	1,646
190.	K mart	1,643
191.	Idaho Public Employees	1,637
192.	Equitable Life	1,635
193.	Bechtel Power	1,618
194.	Carpenters, N. California	1,608
195.	Consolidated Natural Gas	1,607
196.	Georgia-Pacific	1,602
197.	Hercules	1,600
198.	United Telecommunications	1,588
199.	GenCorp	1,583
200.	Chicago Policemen	1,571
	Total	$1,415,5

Ranking of funds/sponsors 201-1,000

Assets in $ millions

Rank	Fund/sponsor	Location	Assets
201.	Milwaukee City	Milwaukee	1,553
202.	Nat'l Plumbers	Cheverly, Md.	1,546
203.	Ralston-Purina	St. Louis	1,546
204.	Missouri State	Jefferson City	1,536
205.	Teledyne	Los Angeles	1,532
206.	Philadelphia Municipal	Philadelphia	1,520
207.	Hallmark Cards	Kansas City, Mo.	1,515
208.	Chase Manhattan	New York	1,507
209.	Baltimore City	Baltimore	1,500
210.	Montana State Board	Helena	1,500
211.	Pan American Airways	New York	1,497
212.	U.S. Air	Arlington, Va.	1,493
213.	Nat'l Auto Dealers	McLean, Va.	1,476
214.	Houston Retirement	Houston	1,470
215.	ILGWU	New York	1,470
216.	John Hancock	Boston	1,465
217.	Cook County Emp.	Chicago	1,463
218.	Kaiser Permanente	Oakland, Calif.	1,461
219.	Pacific Enterprises	Los Angeles	1,461
220.	Wyoming Retirement	Cheyenne	1,455
221.	District of Columbia	Washington	1,450
222.	Philadelphia Electric	Philadelphia	1,449
223.	BankAmerica	San Francisco	1,445
224.	Texas Instruments	Dallas	1,443
225.	James River	Richmond, Va.	1,437
226.	South Dakota	Pierre	1,420
227.	Orange County	Santa Ana, Calif.	1,416
228.	Sandia Nat'l Labs	Albuquerque	1,416
229.	North American Philips	New York	1,410
230.	Army & Air Force	Dallas	1,403
231.	Hewlett-Packard	Palo Alto, Calif.	1,402
232.	Emerson Electric	St. Louis	1,400
233.	N. England Teamsters	Boston	1,400
234.	Unocal	Los Angeles	1,392
235.	N.Y. Carpenters	New York	1,379
236.	Northwest Airlines	St. Paul, Minn.	1,375
237.	Sun Co.	Radnor, Pa.	1,373
238.	Federated Dept. Stores	Cincinnati	1,361
239.	YMCA	New York	1,350
240.	American Cyanamid	Wayne, N.J.	1,336
241.	Mass. Insitute of Tech.	Cambridge	1,336
242.	Michigan Municipal	Lansing	1,327
243.	Financial Institutions	White Pine, N.Y.	1,321
244.	Oklahoma Employees	Oklahoma City	1,318
245.	Bayer USA	Pittsburgh	1,300
246.	Elec. Products Indus.	Flushing, N.Y.	1,300
247.	Op. Eng. #12	Pasadena, Calif.	1,300
248.	Warner Lambert	Mor. Plains, N.J.	1,300
249.	SmithKline Beecham	Philadelphia	1,293
250.	Arkansas Employees	Little Rock	1,292
251.	Dun & Bradstreet	New York	1,291
252.	Pfizer	New York	1,288
253.	Arizona Public Safety	Phoenix	1,285
254.	Unilever USA	New York	1,282
255.	Goodyear Tire	Akron, Ohio	1,278
256.	Litton Indus.	Beverly Hills	1,270
257.	Champion Int'l	Stamford, Conn.	1,269
258.	General Public Utilities	Reading, Pa.	1,255
259.	Op. Eng. #302, 612	Seattle	1,251
260.	Deseret Mutual	Salt Lake City	1,247
261.	West Virginia	Charleston	1,246
262.	LTV	Dallas	1,237
263.	N. Calif. Retail Clerks	Walnut Creek	1,237
264.	Merck	Rahway, N.J.	1,227
265.	Op. Eng. #2	San Francisco	1,223
266.	Public Service E&G	Newark, N.J.	1,221
267.	Bristol-Myers Squibb	New York	1,219
268.	Armstrong World Indus.	Lancaster, Pa.	1,217
269.	General Public Utilities	Parsippany, N.J.	1,200
270.	Int'l Monetary Fund	Washington	1,200
271.	Kimberly-Clark	Dallas	1,200
272.	Texas Utilities	Dallas	1,200
273.	Scott Paper	Philadelphia	1,190
274.	Weyerhaeuser	Tacoma, Wash.	1,186
275.	Nat'l Laborers	Dallas	1,181
276.	Occidental Petroleum	Los Angeles	1,178
277.	PepsiCo	Purchase, N.Y.	1,178
278.	Quaker Oats	Chicago	1,160
279.	MEBA	Baltimore	1,141
280.	Corning	Corning, N.Y.	1,140
281.	General Mills	Minneapolis	1,138
282.	Coastal	Houston	1,135
283.	McDermott Int'l	New Orleans	1,131
284.	Union Pacific	Bethlehem, Pa.	1,125
285.	Reynolds Metals	Richmond, Va.	1,123
286.	W.R. Grace	New York	1,110
287.	Upjohn	Kalamazoo, Mich.	1,104
288.	ARAMCO Services	Houston	1,100
289.	BASF	Parsippany, N.J.	1,100
290.	Rohm & Haas	Philadelphia	1,100
291.	Hoechst Celanese	Somerville, N.J.	1,092
292.	Hanson Indus.	Iselin, N.J.	1,088
293.	Federal Express	Memphis, Tenn.	1,081
294.	Nebraska State	Lincoln	1,081
295.	Nat'l Auto. Sprink. #669	Landover, Md.	1,079
296.	Times Mirror	New York	1,079
297.	Contel	Atlanta	1,069
298.	Nat'l Maritime Union	New York	1,066
299.	Continental Can	Norwalk, Conn.	1,061
300.	San Diego County	San Diego	1,057
301.	American Red Cross	Alexandria, Va.	1,054
302.	American Brands	Old Gr'nwich	1,053
303.	Cummins Engine	Columbus, Ind.	1,053
304.	Columbia Gas System	Wilmington, Del.	1,049
305.	Manufacturers Hanover	New York	1,044
306.	Detroit Edison	Detroit	1,043
307.	Bicoastal	Tampa, Fla.	1,042
308.	Coca-Cola	Atlanta	1,035
309.	Boise Cascade	Boise, Idaho	1,032
310.	New Hampshire	Concord	1,027
311.	Kroger	Cincinnati	1,026
312.	Westvaco	New York	1,022
313.	Ingersoll-Rand	W'dcliff Lk., N.J.	1,021
314.	May Dept. Stores	St. Louis	1,015
315.	American Nat'l Can	Chicago	1,011
316.	Motion Picture Industry	Studio City, Calif.	1,011
317.	Whirlpool	Bent. Har., Mich.	1,009
318.	Olin	Stamford, Conn.	1,004
319.	Hoffmann-LaRoche	Nutley, N.J.	1,003
320.	CBS	New York	1,000
321.	Fluor	Irvine, Calif.	1,000
322.	Baltimore County	Baltimore	997
323.	CIBA-GEIGY	Ardsley, N.Y.	986
324.	Dana	Toledo, Ohio	980
325.	Liberty Mutual	Boston	980
326.	FMC	Chicago	978
327.	S. Calif. Carpenters	Los Angeles	977
328.	San Jose City	San Jose, Calif.	975
329.	Manville	Denver	973
330.	Montgomery Ward	Chicago	973
331.	Sacramento County	Sacramento, Cal.	960
332.	Bell Communications	Livingston, N.J.	952
333.	Marsh & McLennan	New York	951
334.	Central & South West	Dallas	940
335.	Brown & Williamson	Louisville, Ky.	939
336.	Northern States Power	Minneapolis	935
337.	Asea Brown Boveri	Stamford, Conn.	930
338.	Polaroid	Cambridge	929
339.	Ashland Oil	Ashland, Ky.	927
340.	Tribune Co.	Chicago	923
341.	Schlumberger	New York	922
342.	Northeast Utilities	Hartford, Conn.	921
343.	Campbell Soup	Camden, N.J.	918
344.	Capital Group	Los Angeles	918
345.	S. Calif. Rapid Transit	Los Angeles	916
346.	CSX	Richmond, Va.	915
347.	Safeway	Oakland, Calif.	914
348.	ICI Americas	Wilmington, Del.	908
349.	Colgate-Palmolive	New York	907
350.	Capital Cities/ABC	New York	905
351.	Denver Public Schools	Denver	900
352.	Boston Retirement	Boston	897
353.	Whitman	Chicago	895
354.	San Diego City	San Diego	894
355.	Niagara Mohawk Power	Syracuse, N.Y.	892
356.	Blue Cross/Shield Nat'l	Chicago	891
357.	United Church Board	New York	885
358.	Nat'l Elevator Indus.	Philadelphia	884
359.	Time Warner	New York	879
360.	R.R. Donnelley	Chicago	875
361.	Conrail	Philadelphia	873
362.	Chicago Transit Auth.	Chicago	871
363.	Entergy	New Orleans	870
364.	Arthur Andersen	Chicago	863
365.	Steelcase	Grand Rapids	863
366.	Norfolk Southern	Norfolk, Va.	862
367.	Kellogg	Battle Crk., Mich.	857
368.	San Bernardino County	S. Bern., Calif.	855
369.	Healthtrust	Nashville, Tenn.	854
370.	Pacific Maritime Assoc.	San Francisco	852
371.	Minneapolis Employees	Minneapolis	846
372.	Cincinnati City	Cincinnati	845
373.	Lutherans-Missouri	St. Louis	843
374.	Parsons Corp.	Pasadena, Calif.	842
375.	Coltec Industries	New York	840
376.	Mars	McLean, Va.	839
377.	Mead	Dayton, Ohio	839
378.	American Home Prod.	New York	838
379.	Panhandle Eastern	Houston	836
380.	Ernst & Young	New York	835
381.	Alameda County	Oakland, Calif.	834
382.	Greyhound Lines Amal.	W. Des Moines	833
383.	Central Pa. Teamsters	Reading	832
384.	Pillsbury	Minneapolis	825
385.	N. Calif. Laborers	Suisun	824
386.	UFCW #27	Baltimore	823
387.	Fairfax County	Fairfax, Va.	822
388.	Borden	Columbus, Ohio	819
389.	Winn Dixie	Jacksonville, Fla.	819
390.	Jefferson Smurfit	St. Louis	814
391.	Service Emp. #32B, 32J	New York	813
392.	Wal-Mart	Bentonville, Ark.	810
393.	Black & Decker	Towson, Md.	803
394.	Nat'l Steel	Pittsburgh	800
395.	N. Dakota State	Bismarck	800
396.	UFCW Nat'l	Chicago	798
397.	Lear Siegler	Livingston, N.J.	798
398.	Enron	Houston	795
399.	Op. Eng. #18	Cleveland	792
400.	Duke Power	Charlotte, N.C.	791
401.	Gillette	Boston	787
402.	Consumers Power	Jackson, Mich.	786
403.	Goldman, Sachs	New York	786
404.	Cincinnati Bell	Cincinnati	785
405.	DeLuxe	St. Paul, Minn.	785
406.	Ethyl	Richmond, Va.	782
407.	Lumber Prod., W. Cncl.	Portland, Ore.	781
408.	Pennsylvania P&L	Allentown	779
409.	Stone & Webster	New York	777
410.	Mass. Bay Transit	Boston	772
411.	Teamsters #705	Chicago	770
412.	Harris	Melbourne, Fla.	766
413.	Midwest Op. Eng. #150	Countryside, Ill.	765
414.	Graphic Comms. Int'l	Washington	760
415.	Chicago Carpenters	Chicago	757
416.	EG&G	Wellesley, Mass.	753
417.	Centerior Energy	Indep., Ohio	752
418.	Contra Costa County	Concord, Calif.	744
419.	Dallas Employees	Dallas	742
420.	MITRE	Bedford, Mass.	742
421.	E-Systems	Dallas	741
422.	Calif. Iron Wrkrs.	San Marino	741
423.	Gannett	Arlington, Va.	740
424.	Control Data	Minneapolis	736
425.	Wayne County	Detroit	736
426.	PacifiCorp	Portland, Ore.	728
427.	Comm. Wrkrs./Int'l Typ.	Colorado Springs	727
428.	Budd	Troy, Mich.	725
429.	A.H. Belo	Dallas	724
430.	Longshoremen Int'l	New York	723
431.	Santa Fe Pacific	Chicago	722
432.	Farmland Industries	Kansas City, Mo.	721
433.	Kaiser Alum. & Chem.	Oakland, Calif.	721
434.	Baltimore G&E	Baltimore	718
435.	Montgomery County	Rockville, Md.	716
436.	Milwaukee County	Milwaukee	713
437.	Laborers & Retirement	Chicago	708
438.	Graphic Arts #458	Chicago	707
439.	Masters, Mates & Pilots	Linth. Hts., Md.	707
440.	Western Union	Up. Sad. Ri., N.J.	706
441.	Ohio Edison	Akron	701
442.	Burlington Resources	Seattle	700
443.	Dayton Hudson	Minneapolis	695
444.	Johnson Controls	Milwaukee	695
445.	Jacksonville City	Jacksonville, Fla.	694
446.	General Signal	Stamford, Conn.	687
447.	Nalco Chemical	Naperville, Ill.	686
448.	Union Camp	Wayne, N.J.	686
449.	Arthur D. Little	C'bridge, Mass.	683
450.	Louisiana Schools	Baton Rouge	674
451.	Memphis City	Memphis, Tenn.	674
452.	Sundstrand	Rockford, Ill.	674
453.	Schering-Plough	Madison, N.J.	671
454.	American Fed. Radio/TV	New York	668
455.	Ohio Laborers	Columbus	668
456.	Colorado Fire & Police	Englewood	667
457.	White Consolidated	Cleveland	667
458.	Battelle	Columbus, Ohio	665
459.	Screen Actors/Prod.	Burbank, Calif.	665
460.	Household Int'l	Prospect Hts., Ill.	664
461.	Navy Resale & Services	Staten Isl., N.Y.	658
462.	Major League Players	New York	657
463.	Peoples Energy	Chicago	657
464.	Ametek	N. Haven, Conn.	655
465.	Missouri Local Gov't	Jefferson City	650
466.	Owens-Corning	Toledo, Ohio	650
467.	Southland	Dallas	650
468.	Chicago Laborers	Forest Park, Ill.	647
469.	Bridgestone/Firestone	Akron, Ohio	646
470.	Tektronix	Beaverton, Ore.	645
471.	Atochem	Philadelphia	643
472.	Marriott	Washington	[illegible]
473.	New York State G&E	Ithaca	[illegible]

Ranking of funds/sponsors 201-1,000

Assets in $ millions

Rank	Fund/sponsor	Location	Assets
474.	GCIU-Employer	El Monte, Calif.	639
475.	Oryx Energy	Dallas	638
476.	KPMG Peat Marwick	Montvale, N.J.	636
477.	Teamsters #282	Elmont, N.Y.	636
478.	Aerospace Corp.	El Segundo, Cal.	635
479.	Dominion Resources	Richmond, Va.	635
480.	Detroit Carpenters	Ferndale, Mich.	634
481.	Burlington Indus.	Greensboro, N.C.	632
482.	RSSI	New York	627
483.	Sara Lee	Chicago	625
484.	Teamsters #710	Chicago	624
485.	Brunswick	Skokie, Ill.	618
486.	Farley Indus.	Chicago	616
487.	Quantum Chemical	New York	616
488.	AMP	Harrisburg, Pa.	615
489.	Hospital Corp.	Nashville, Tenn.	613
490.	Norton	Worcester, Mass.	611
491.	Carolina P&L	Raleigh, N.C.	608
492.	Elec. Wrkrs., Int'l HQ	Washington	608
493.	N. England Electric	W'boro, Mass.	604
494.	Maytag	Newton, Iowa	602
495.	Northern Telecom	Nashville, Tenn.	601
496.	Publix Super Markets	Lakeland, Fla.	601
497.	Allegheny Power	New York	600
498.	Beazer East	Pittsburgh	598
499.	GCIU Inter-Local	Chicago	598
500.	Sherwin-Williams	Cleveland	596
501.	McKesson	San Francisco	592
502.	B.F.Goodrich	Akron, Ohio	590
503.	Am. Fed.-Musicians	New York	588
504.	Milliken	Spart'burg, S.C.	586
505.	Houston Indus.	Houston	583
506.	Paper Indus. Int'l	Nashville, Tenn.	580
507.	Cleveland-Cliffs	Cleveland	579
508.	McDonald's	Oak Brook, Ill.	577
509.	Atlanta City	Atlanta	576
510.	Washington Post	Washington	576
511.	Ventura County	Ventura, Calif.	575
512.	Ohio Carpenters	Cleveland	572
513.	UFCW/Butchers	Oakland, Calif.	570
514.	H.J. Heinz	Pittsburgh	570
515.	Union Electric	St. Louis	570
516.	Baton Rouge Police	Baton Rouge, La.	569
517.	Directors Guild	Los Angeles	569
518.	Florida Progress	St. Petersburg	567
519.	Beatrice	Chicago	565
520.	Laborers Int'l HQ	Washington	562
521.	Timken	Canton, Ohio	555
522.	Avon Products	New York	553
523.	Johnson & Higgins	New York	553
524.	Sandoz	New York	553
525.	Transco Energy	Houston	550
526.	Paramount Comm.	New York	549
527.	McGraw-Hill	New York	548
528.	Westinghouse Hanford	Richland, Wash.	547
529.	Roadway Services	Cleveland	546
530.	Wisconsin Elec. Power	Milwaukee	544
531.	N.Y. State Teamsters	Utica	543
532.	Automotive Indus.	Oakland, Calif.	542
533.	Michigan Consol. Gas	Detroit	540
534.	UFCW Int'l HQ	Washington	540
535.	CPC Int'l	Englew'd Cl., N.J.	539
536.	Atlanta UFCW	Atlanta	539
537.	Sht. Metal Wrkrs. #108	Los Angeles	539
538.	Premark Int'l	Deerfield, Ill.	536
539.	Borg-Warner	Chicago	533
540.	Parker-Hannifin	Cleveland	533
541.	Andersen	Bayport, Minn.	531
542.	S. Calif. Elec. Wrkrs.	Los Angeles	531
543.	Thiokol	Ogden, Utah	526
544.	Long Island Lighting	Hicksville, N.Y.	525
545.	Chicago Firemen	Chicago	522
546.	McKinsey	New York	521
547.	R.H. Macy	New York	516
548.	Seattle City	Seattle	516
549.	Inter-Am. Dev. Bank	New York	515
550.	Walgreen	Deerfield, Ill.	515
551.	Pitney-Bowes	Stamford, Conn.	514
552.	Moore Business Forms	Glenview, Ill.	512
553.	Air Prod. & Chem.	Allentown, Pa.	510
554.	Aon	Chicago	510
555.	Longshore/ILWU/PMA	San Francisco	510
556.	Mack Trucks	Allentown, Pa.	509
557.	Cargill	Minneapolis	505
558.	San Diego G&E	San Diego	504
559.	Woolworth	New York	500
560.	Seafarers	C. Springs, Md.	499
561.	Varian Assoc.	Palo Alto, Calif.	492
562.	Cincinnati G&E	Cincinnati	491
563.	Fresno County	Fresno, Calif.	491
564.	Carpenter Technology	Reading, Pa.	486
565.	Colorado Public Service	Denver	484
566.	Mercantile Stores	New York	484
567.	Philadelphia Carpenters	Philadelphia	483
568.	W. Pa. Teamsters	Pittsburgh	480
569.	Centel	Chicago	478
570.	N. Ind. Public Service	Hammond	477
571.	Pittsburgh Nat'l Bank	Pittsburgh	477
572.	Plumb./Pipefitters #597	Chicago	477
573.	Delmarva P&L	Wilmington, Del.	476
574.	Briggs & Stratton	Milwaukee	475
575.	Am. Cotton Gar. Wrkrs.	New York	473
576.	Chicago Elec. Cont.	Chicago	473
577.	Nat'l Telephone Co-op	Washington	472
578.	N. Illinois Gas	Aurora, Ill.	472
579.	A.O. Smith	Milwaukee	472
580.	Stanley Works	N. Britain, Conn.	472
581.	Bull HN Information	Billerica, Mass.	470
582.	Fort Worth Emp.	Ft. Worth, Texas	466
583.	Becton Dickinson	Frklin Lks., N.J.	465
584.	Phelps Dodge	Phoenix, Ariz.	464
585.	Phoenix City	Phoenix, Ariz.	464
586.	Masco/Trimas	Taylor, Mich.	463
587.	Alcan Aluminum	C'bridge, Mass.	461
588.	Missouri Highway	Jefferson City	461
589.	Teamsters Affiliates	Washington	460
590.	EDS	Dallas	459
591.	Op. Eng. #15	New York	457
592.	Reader's Digest	Pleas'tville, N.Y.	457
593.	Op. Eng. #324	Birm'ham,Mich.	455
594.	San Joaquin County	Stockton, Calif.	455
595.	Denver Emp.	Denver	453
596.	MCI Communications	Washington	453
597.	Belk/Leggett Stores	Charlotte, N.C.	450
598.	Lincoln Nat'l	Fort Wayne, Ind.	450
599.	Interco	St. Louis	447
600.	Alaska Teamsters	Anchorage	446
601.	San Mateo County	R'wood City, Cal.	445
602.	Building Service	San Francisco	443
603.	Gerber Products	Fremont, Mich.	443
604.	Philadelphia Teamsters	Philadelphia	442
605.	Joseph E. Seagram	New York	441
606.	Kern County	Bakersfield, Calif.	440
607.	N. Cal. Sht. Metal Wkrs.	San Francisco	440
608.	Square D	Palatine, Ill.	440
609.	Consol. Freightways	Pal Alto, Calif.	439
610.	Lab./S. Calif. Plstrs.	Los Angeles	439
611.	W. Pa. Laborers	Pittsburgh	439
612.	Illinois Tool Works	Glenview	438
613.	Flint City	Flint, Mich.	435
614.	American Express	New York	434
615.	USAA Investment	S. Antonio, Texas	432
616.	Midwest UFCW	Chicago	429
617.	USG	Chicago	429
618.	Dallas Police & Fire	Dallas	428
619.	Arizona Public Service	Phoenix	426
620.	La. Municipal Police	Baton Rouge	425
621.	Nat'l Intergroup	Pittsburgh	425
622.	V F Corp.	Reading, Pa.	425
623.	Hearst	New York	424
624.	Western Metal Indus.	Seattle	422
625.	Hotel/Rest. Wrkrs. #165	Las Vegas, Nev.	421
626.	Springs Industries	Fort Mill, S.C.	420
627.	Rohr Indus.	Chula Vista, Calif.	419
628.	Oklahoma Firefighters	Oklahoma City	418
629.	Towers, Perrin	Philadelphia	418
630.	Op. Eng. #825	Newark, N.J.	417
631.	Sonat	Birmingham, Ala.	416
632.	Gates Rubber	Denver	415
633.	Hartford City	Hartford, Conn.	415
634.	Brooklyn Union Gas	Brooklyn, N.Y.	413
635.	Longshore/STA-ILA	Baltimore	412
636.	Minneapolis Teachers	Minneapolis	412
637.	American Standard	New York	408
638.	S. Calif. Pipe Trades	Los Angeles	408
639.	Henley Group	Hampton, N.H.	407
640.	Cincinnati Milacron	Cincinnati	406
641.	Alaska Laborers	Seattle	405
642.	Boston Edison	Boston	404
643.	Wickes	S. Monica, Calif.	404
644.	Chicago Sanitary Dist.	Chicago	403
645.	Knight-Ridder	Miami	403
646.	Rochester G&E	Rochester, N.Y.	403
647.	S. Antonio Public Ser.	S. Antonio, Texas	403
648.	UFCW #1001	Bellevue, Wash.	401
649.	Boy Scouts	Irving, Texas	400
650.	Brick./Trowel Trades	Washington	397
651.	Bldg. Trades United	Milwaukee	397
652.	Auto Wkrs., Nat'l HQ	Detroit	398
653.	Memphis LG&W	Memphis, Tenn.	392
654.	St. Louis Schools	St. Louis	392
655.	TRINOVA	Maumee, Ohio	392
656.	Nestle Food	Purchase, N.Y.	389
657.	Oklahoma Police	Oklahoma City	389
658.	Loral	New York	388
659.	United Services Auto	S. Antonio, Texas	388
660.	ENSERCH	Dallas	387
661.	George Hormel	Austin, Minn.	387
662.	Mass. Carpenters	Wilmington	305
663.	Newell	Freeport, Ill.	385
664.	Washington Area Trans.	Washington	385
665.	La. Parochial Emp.	Natchitoches	382
666.	Equifax	Atlanta	381
667.	Humana	Louisville, Ky.	381
668.	S. Calif. Permanente	Pasadena	381
669.	Nat'l Industrial Group	Newark, N.J.	380
670.	Alaska Elec. Wkrs.	Anchorage	379
671.	Potlatch	Walnut Crk., Cal.	377
672.	Miami Fire & Police	Miami	376
673.	Alexander & Alexander	Owings Mills, Md.	375
674.	Austin Employees	Austin, Texas	375
675.	Sequa	New York	375
676.	Ohio & Vic. Iron Wkrs.	Ch'leston, W. Va.	373
677.	Williams Co.	Tulsa, Okla.	373
678.	Nat'l Football League	New York	372
679.	Coca-Cola Enterprises	Atlanta	371
680.	Steelworkers Nat'l HQ	Pittsburgh	371
681.	Vulcan Materials	Birmingham, Ala.	371
682.	Adolph Coors	Golden, Colo.	370
683.	Dan River	Danville, Va.	370
684.	S.C. Johnson	Racine, Wis.	370
685.	Revlon	New York	368
686.	Burroughs-Wellcome	Res.Tri.Pk., N.C.	366
687.	Loews	New York	366
688.	Hawaiian Electric	Honolulu	365
689.	Perkin-Elmer	Norwalk, Conn.	365
690.	Producer-Writers Guild	Burbank, Calif.	364
691.	N.Y. Cultural Inst.	New York	360
692.	Salt River Project	Phoenix, Ariz.	360
693.	St. Louis Police	St. Louis	360
694.	Potomac Electric Power	Washington	357
695.	Washington Gas Light	Washington	357
696.	N. N.J. Iron Wkrs.	Newark	356
697.	Dresser	Dallas	355
698.	UFCW #7	Wh't Ridge, Colo.	354
699.	Graybar Electric	St. Louis	354
700.	Gulf States Utilities	Beaumont, Texas	354
701.	Iron Wkrs. #40/361/417	New York	354
702.	Carpenters, Int'l HQ	Washington	353
703.	First Bank System	Minneapolis	351
704.	Harris Pump & Supply	Pittsburgh	351
705.	Science Applic. Int'l	San Diego	351
706.	Syntex	Palo Alto, Calif.	351
707.	Hershey Foods	Hershey, Pa.	350
708.	National Fuel Gas	Buffalo, N.Y.	350
709.	Rio Grande Indus.	Denver	350
710.	Amerada Hess	New York	349
711.	J.M. Huber	Edison, N.J.	349
712.	Service Emp. #144	New York	349
713.	Libbey-Owens-Ford	Toldeo, Ohio	348
714.	Reliance Electric	M'field Hts., Ohio	348
715.	Maritime Assoc./ILA	Houston	347
716.	A.G. Edwards	St. Louis	346
717.	E. Baton Rouge Emp.	Baton Rouge, La.	345
718.	Tampa Fire & Police	Tampa, Fla.	345
719.	Maryland Supple.	Baltimore	344
720.	Clark Equipment	South Bend, Ind.	342
721.	Rochester Telephone	Rochester, N.Y.	341
722.	Vermont State	Montpelier	341
723.	Agway	Syracuse, N.Y.	340
724.	Fresno City	Fresno, Calif.	340
725.	Kansas P&L	Topeka	339
726.	Kerr-McGee	Oklahoma City	338
727.	MAPCO	Tulsa, Okla.	338
728.	Ryder System	Miami	338
729.	Consolidated Papers	Wis. Rapids, Wis.	335
730.	Cyclops Indus.	Pittsburgh	334
731.	Dillon	Hutchinson, Kan.	334
732.	Comm. Clearing House	Riverwoods, Ill.	330
733.	Santa Barbara County	S. Barbara,Calif.	330
734.	Textile Wkrs., Nat'l HQ	New York	329
735.	Carnation	Glendale, Calif.	327
736.	Zenith Electronic	Chicago	327
737.	Auto Wkrs. Dist. #65	New York	326
738.	Laborers #23, 13	New York	326
739.	Alco Standard	Valley Forge, Pa.	325
740.	Machinists #9	Bridgeton, Mo.	325
741.	Primerica	Baltimore	324
742.	Royal Insurance	Charlotte, N.C.	324
743.	ALLTEL	Little Rock, Ark	322
744.	Birmingham City	Birmingham, Ala.	322
745.	Chubb	Warren, N.J.	322
746.	Laborers #253	Jacksonville, Ill.	322

Ranking of funds/sponsors 201-1,000

Assets in $ millions

Rank	Fund/sponsor	Location	Assets
747.	Morton Int'l	Chicago	320
748.	Nat'l Gypsum	Dallas	319
749.	Upholsterers, Int'l	Philadelphia	319
750.	Duquesne Light	Pittsburgh	318
751.	Actors Eq. Screen Extr.	New York	317
752.	Laborers #472, 172	Newark, N.J.	317
753.	Lowe's Co.	N. Wilkesb., N.C.	317
754.	Pechiney	Gr'nwich, Conn.	317
755.	First Boston	New York	316
756.	Nash./Davidson Cnty	Nashville, Tenn.	316
757.	TECO Energy	Tampa, Fla.	314
758.	Fort Howard Paper	Green Bay, Wis.	312
759.	Intel	S. Clara, Calif.	312
760.	Auto Machinists #289	Seattle	312
761.	Scana	Columbia, S.C.	312
762.	Sonoco Prod.	Hartville, S.C.	312
763.	American Insurance	Washington	311
764.	Commonwealth Energy	C'bridge, Mass.	311
765.	Marmon Group	Chicago	311
766.	Moorman Mfg.	Quincy, Ill.	311
767.	Oakland County	Pontiac, Mich.	311
768.	Elec. Wkrs. #332	San Jose, Calif.	310
769.	Chicago Park Emp.	Chicago	309
770.	Fireman's Fund	Novato, Calif.	309
771.	Gould	Eastlake, Ohio	308
772.	Tecumseh Products	Tecumseh, Mich.	308
773.	W. Wash. Crpntrs.	Seattle	307
774.	Ball	Muncie, Ind.	306
775.	Oakland Municipal	Oakland, Calif.	306
776.	New York Times	New York	305
777.	Cox Enterprises	Atlanta	304
778.	S. Antonio Fire & Police	S. Antonio, Texas	304
779.	Portland Electric	Portland, Ore.	303
780.	Teamsters #182	Utica, N.Y.	303
781.	Outboard Marine	Waukegan, Ill.	302
782.	Leo Burnett	Chicago	301
783.	DeKalb County Emp.	Decatur, Ga.	300
784.	Fairfax County Schools	Springfield, Va.	300
785.	Arlington County	Arlington, Va.	298
786.	Mass. Laborers	Newton	297
787.	World Color Press	Effingham, Ill.	296
788.	PaineWebber	Weehawken, N.J.	295
789.	American Water Works	Voorhess, N.J.	294
790.	Elf Aquitaine	Stamford, Conn.	293
791.	Marion Merrell Dow	Kansas City, Mo.	293
792.	Super Valu Stores	E. Prairie,Minn.	293
793.	AMFAC	San Francisco	292
794.	Op. Eng. #542	Norristown, N.J.	292
795.	Marin County	San Rafael, Calif.	291
796.	Wrigley Co.	Chicago	291
797.	Twin Cities Carpenters	Minneapolis	290
798.	Plumbers #525	Las Vegas, Nev.	290
799.	U.S. Fidelity & Guaranty	Baltimore	290
800.	Blue Cross/Shield Mich.	Detroit	289
801.	Arvin Indus.	Columbus, Ind.	287
802.	Int'l Minerals & Chem.	Northbrook, Ill.	287
803.	Plumbers/Steamfitters	New York	287
804.	Bank of New York	New York	286
805.	Bowater	Darien, Conn.	286
806.	New Jersey Carpenters	Madison	286
807.	ConAgra	Omaha, Neb.	286
808.	St. Louis Employees	St. Louis	286
809.	Tmsters/Mid-Jer. Trkrs.	N. Brunswick	286
810.	Capital Holding	Louisville, Ky.	285
811.	Laborers #731	New York	285
812.	Pittston	Gr'nwich, Conn.	283
813.	Williamette Indus.	Portland, Ore.	283
814.	Avery Int'l	Pasadena, Calif.	281
815.	Grand Union	Wayne, N.J.	281
816.	W. Pa. Carpenters	Pittsburgh	280
817.	Knoxville City	Knoxville, Tenn.	280
818.	Michelin Tire	Greenville, S.C.	280
819.	Wisc. Public Service	Green Bay	279
820.	Illinois Power	Decatur	278
821.	Elec. Wkrs. #1186	Honolulu	278
822.	Sacramento City	Sacramento, Cal.	276
823.	St. Paul Teachers	St. Paul, Minn.	276
824.	Cooper Tire & Rubber	Findlay, Ohio	275
825.	Roofers, Nat'l	Washington	275
826.	BOC Group	Murray Hill, N.J.	274
827.	Illinois Carpenters	Geneva	274
828.	G. Heileman Brewing	LaCrosse, Wis.	274
829.	Hotel Trades Cncl.	New York	274
830.	Savings Bank Emp.	Woburn, Mass.	274
831.	Wichita Retirement	Wichita, Kan.	272
832.	Dow Jones	New York	270
833.	N. Orleans Longshore	New Orleans	269
834.	TBG	New York	269
835.	Prince Georges County	Up. M'boro, Md.	268
836.	Pa. Municipal	Harrisburg	267
837.	Sisters of Providence	Seattle	267
838.	Allis-Chalmers	Milwaukee	266
839.	Elec. Products Indus.	Flushing, N.Y.	265
840.	SPX	Muskegon, Mich.	264
841.	Iron Wkrs. #25	Novi, Mich.	263
842.	S'western Pub. Serv.	Amarillo, Texas	263
843.	ARA Services	Philadelphia	262
844.	Great Lakes Carbon	B'cliff Man., N.Y.	261
845.	Iron Wkrs., Mid-Amer.	Lansing, Ill.	261
846.	United Brands	Cincinnati	261
847.	Indiana Laborers	Terre Haute	260
848.	Simpson Investment	Seattle	260
849.	Witco	W'cliff Lk., N.J.	260
850.	Bemis	Minneapolis	258
851.	Goodwins	B'cliff Man., N.Y.	258
852.	ONEOK	Tulsa, Okla.	258
853.	Puget Sound P&L	Bellvue, Wash.	258
854.	Atlantic City Electric	Atlantic City, N.J.	255
855.	Ohio Casualty	Hamilton	255
856.	Elec. Wkrs. #203	D'chester, Mass.	254
857.	Seattle Iron Wkrs.	Seattle	254
858.	Mass. General Hospital	Boston	254
859.	NVF	Miami Beach	254
860.	MCA	Univ. City, Calif.	252
861.	Harsco	Camp Hill, Pa.	251
862.	Alaska Laborers	Fairbanks	251
863.	Akzo America	New York	250
864.	Blue Cross/Shield-Iowa	Des Moines	250
865.	Food Lion	Salisbury, N.C.	250
866.	Gr. Cleve. Hosp. Assoc.	Cleveland	250
867.	Levi Strauss	San Francisco	250
868.	PACCAR	Bellevue, Wash.	250
869.	N. Ill. Sub. Teamsters	W. Chicago	250
870.	Engelhard	Edison, N.J.	249
871.	S. Cal. UFCW/Drug Em.	Los Angeles	249
872.	Kansas City P&L	Kansas City, Mo.	249
873.	Cent. Ohio UFCW	Columbus	247
874.	UFCW #555	Tigard, Ore.	247
875.	Keystone Consol.	Dallas	247
876.	Questar	Salt Lake City	247
877.	Federal-Mogul	Detroit	246
878.	Foxboro Co.	Foxboro, Mass.	246
879.	Walt Disney	Burbank, Calif.	245
880.	UFCW #576	Kansas City, Mo.	245
881.	Grand Rapids City	Gr. Rapids, Mich.	245
882.	K.C. Public Schools	Kansas City, Mo.	245
883.	Plumb./Steamftrs #420	Philadelphia	245
884.	Arkla	Shreveport, La.	244
885.	Detroit Laborers	Bir'ham,Mich.	244
886.	Louisiana-Pacific	Portland, Ore.	244
887.	UFCW #464a	Little Falls, N.J.	242
888.	Genuine Parts	Atlanta	242
889.	Indiana Farmers Mutual	Indianapolis	242
890.	Waste Management	Oak Brook, Ill.	242
891.	Teamsters #707	Woodside, N.Y.	241
892.	Banco Popular	San Juan, P.R.	240
893.	Continental Grain	New York	240
894.	Elec. Wkrs. Dist. #3	E. Rutherf'd, N.J.	240
895.	Oklahoma G&E	Oklahoma City	240
896.	Op. Eng. #428	Phoenix, Ariz.	240
897.	Elec. Wkrs. #58	Detroit	239
898.	Omaha Public Power	Omaha, Neb.	239
899.	Lukens	Coatesville, Pa.	238
900.	Painters Dist. #9	New York	238
901.	S. Calif. Cem. Masons	El Monte	236
902.	Indianapolis P&L	Indianapolis	235
903.	N.Y. State Nurses	Albany	235
904.	Op. Eng. #66	Monroeville, Pa.	235
905.	Shelby County	Memphis, Tenn.	235
906.	Wang Labs	Lowell, Mass.	235
907.	GATX	Chicago	234
908.	Hotel Rest. #1	Naperville, Ill.	234
909.	Kansas City Police	Kansas City, Mo.	234
910.	Copley Press	La Jolla, Calif.	233
911.	Rubbermaid	Wooster, Ohio	233
912.	Norfolk City	Norfolk, Va.	231
913.	Sheet Metal Wkrs. #73	Chicago	231
914.	Blue Cross Mass.	Boston	230
915.	Nordstrom	Seattle	228
916.	S. Calif. Auto. Club	Los Angeles	227
917.	Op. Eng. #701	Portland, Ore.	227
918.	Calif. State Auto. Club	San Francisco	226
919.	W.W. Grainger	Skokie, Ill.	226
920.	Sisters of Mercy	Farm. Hills, Mich.	226
921.	Montana Laborers	Great Falls	225
922.	Louisiana Municipal	Baton Rouge	225
923.	Stanislaus County	Modesto, Calif.	225
924.	Kimball Int'l	Jasper, Ind.	224
925.	Machinists #701	Chicago	222
926.	Sedgwick James	New York	222
927.	SKF USA	King/Prussia, Pa.	222
928.	Jack Eckerd	Clearwater, Fla.	221
929.	Ohio Highway Patrol	Columbus	221
930.	Pontiac Retirement	Pontiac, Mich.	221
931.	Deloitte Haskins Sells	New York	220
932.	Minnesota Laborers	Minneapolis	220
933.	Maritime Trades #333	Staten Isl.,N.Y.	220
934.	Mercedes Benz	Montvale, N.J.	220
935.	Omaha Schools	Omaha, Neb.	220
936.	Overnite Transportation	Richmond, Va.	220
937.	Twin Cities Pipe Trds.	St. Paul, Minn.	220
938.	Ark. State Highway	Little Rock	219
939.	Wyatt	Washington	219
940.	Babcock Indus.	Fairfield, Conn.	218
941.	Iron Wkrs. #580	New York	218
942.	Archer Daniels Midland	Decatur, Ill.	217
943.	Asbestos Wkrs. Int'l	Washington	217
944.	Dennison Mfg.	Waltham, Mass.	217
945.	Lincoln Electric	Cleveland	217
946.	Painters Dist. #2	San Francisco	217
947.	Allegheny County	Pittsburgh	215
948.	Fieldcrest Cannon	Eden, N.C.	215
949.	Montgomery Cnty. Ed.	Rockville, Md.	215
950.	Anne Arundel Cnty.	Annapolis, Md.	214
951.	Eastern Enterprises	Weston, Mass.	214
952.	Harnischfeger	Milwaukee	214
953.	Pentair	St. Paul, Minn.	214
954.	Teamsters Cncl. #83	Richmond, Va.	214
955.	American Greetings	Cleveland	213
956.	Koch Indus.	Wichita, Kan.	213
957.	Plumbers #98, 636	Southfield, Mich.	213
958.	Amer. Family Mutual	Madison, Wis.	212
959.	San Diego Carpenters	San Diego	212
960.	Michigan Laborers	Lansing	212
961.	White Castle System	Lansing, Mich.	212
962.	Crown Cork & Seal	Philadelphia	211
963.	Plum. #444/159/342	San Francisco	211
964.	Sony of America	Park Ridge, N.J.	211
965.	Tacoma Employees	Tacoma, Wash.	211
966.	Brown-Forman	Louisville, Ky.	210
967.	Miami Beach Emp.	Miami Beach	210
968.	Minneapolis Police	Minneapolis	210
969.	Penn Central	Cincinnati	210
970.	Teamsters #851	Jamaica, N.Y.	210
971.	Woodward Governor	Rockford, Ill.	210
972.	Allegheny Int'l	Pittsburgh	209
973.	Cyprus Minerals	Englewood, Colo.	209
974.	Conn. Laborers	W. Haven	209
975.	Longshr. Hampton Rds.	Norfolk, Va.	209
976.	Syracuse Op. Eng.	Syracuse, N.Y.	209
977.	Amer. Cast Iron Pipe	Birmingham, Ala.	208
978.	Amsted Indus.	Chicago	208
979.	A.B. Dick	Chicago	208
980.	Inland Container	Indianapolis	208
981.	Retail/Wholesale Locals	Birmingham, Ala.	208
982.	U.S. Borax & Chem.	Los Angeles	208
983.	Weirton Steel	Weirton, W. Va.	208
984.	Castle & Cooke	Los Angeles	207
985.	Credit Union Nat'l	Madison, Wis.	207
986.	Diversified Energies	Minneapolis	207
987.	United Dominion	Charlotte, N.C.	207
988.	Young & Rubicam	New York	207
989.	Acme Steel	Riverdale, Ill.	206
990.	Anchorage Municipality	Anchor., Alaska	206
991.	GAB Business Services	Parsippany, N.J.	206
992.	Holiday	Memphis, Tenn.	206
993.	Philadelphia Iron Wkrs.	Philadelphia	206
994.	Nucor	Charlotte, N.C.	206
995.	ADT Security Systems	Parsippany, N.J.	205
996.	Longview Fibre	Longview, Wash.	205
997.	YWCA	New York	205
998.	Amer. Medical Int'l	Beverly Hills	204
999.	Hawaii Carpenters	Honolulu	204
1000.	Macomb County	Mt. Clem., Mich.	204
	Total		**480,291**

On the following pages, *Pensions & Investments* presents sketches of the 200 largest pension funds in the United States. The profiles include each fund's asset allocation, investment managers and key personnel.

GREAT PERFORMANCE IS ROOTED IN GREAT PHILOSOPHY

"I am only a public entertainer who has understood his time."

Pablo Picasso, 1881-1973

In 1990, *our* philosophy not only made sense to our clients, it made them a lot of money. Read about it in the next issue of the newsletter, *Independent Thought*.

For a copy of our performance numbers audited by Ernst & Young, call or write us today.

iA Independence Investment Associates
One Liberty Square, Boston, MA 02109 617-292-8700

CHEAPNESS + IMPROVING FUNDAMENTALS = ATTRACTIVE STOCKS

The entire contents of this special report on the nation's 200 largest pension funds are ©1991 Crain Communications Inc. Reproduction without permission is prohibited.

A

Abbott Laboratories

	($ millions)
Total assets	2,210
Defined benefit	899
401(k)	1,311
Employer DB contributions	0
Benefit payments	30
Employer DC contributions	23
Defined benefit asset mix:	
Stocks	45%
Fixed income	55%
Defined contribution asset mix:	
Company stock	90%
GICs/BICs	10%

ABBOTT PARK, Ill. — As of Sept. 30, Abbott Laboratories' total employee benefit assets increased 14.9% to $2.21 billion from $1.923 billion a year earlier. Defined benefit assets decreased 0.6% during the same period, to $899 million from $904 million. Defined contribution assets increased 28.7%, to $1.311 billion from $1.019 billion.

Equity managers: Domestic — Hagler, Mastrovita & Hewitt; Jennison; Leylegian; RCM Capital; and Sirach Capital.

Fixed-income manager: Domestic — RCM.

The master trustee is Continental Bank.

The key person overseeing the investment management of the fund is A.G. Olsen, director.

Aetna Life & Casualty Co.

	($ millions)
Total assets	2,758
Defined benefit	1,775
Total defined contribution	983
Profit-sharing	962
Other	21
Employer DB contributions	0
Benefit payments	54
Employer DC contributions	80
Internally managed assets:	
Total DB	1,775
Total DC	983
Defined benefit asset mix:	
Stocks	62.7%
Fixed income	7.3%
Cash equivalents	0.8%
Real estate equity	5.4%
Mortgages	1.2%
Other	22.6%
Defined contribution asset mix:	
Company stock	20%
Other stock	8%
Fixed income	72%

HARTFORD, Conn. — As of Sept. 30, Aetna Life & Casualty Co.'s total employee benefit assets increased 2% to $2.758 billion from $2.703 billion a year earlier. Defined benefit assets increased 2.6% during the same period, to $1.775 billion from $1.73 billion. Defined contribution assets rose 1%, to $983 million from $973 million.

All of Aetna's assets are managed by Aetna Capital Management.

The master trustee is Connecticut National Bank.

The key person overseeing the investment management of the fund is Kenneth A. Weissman, director.

Retirement Systems of Alabama

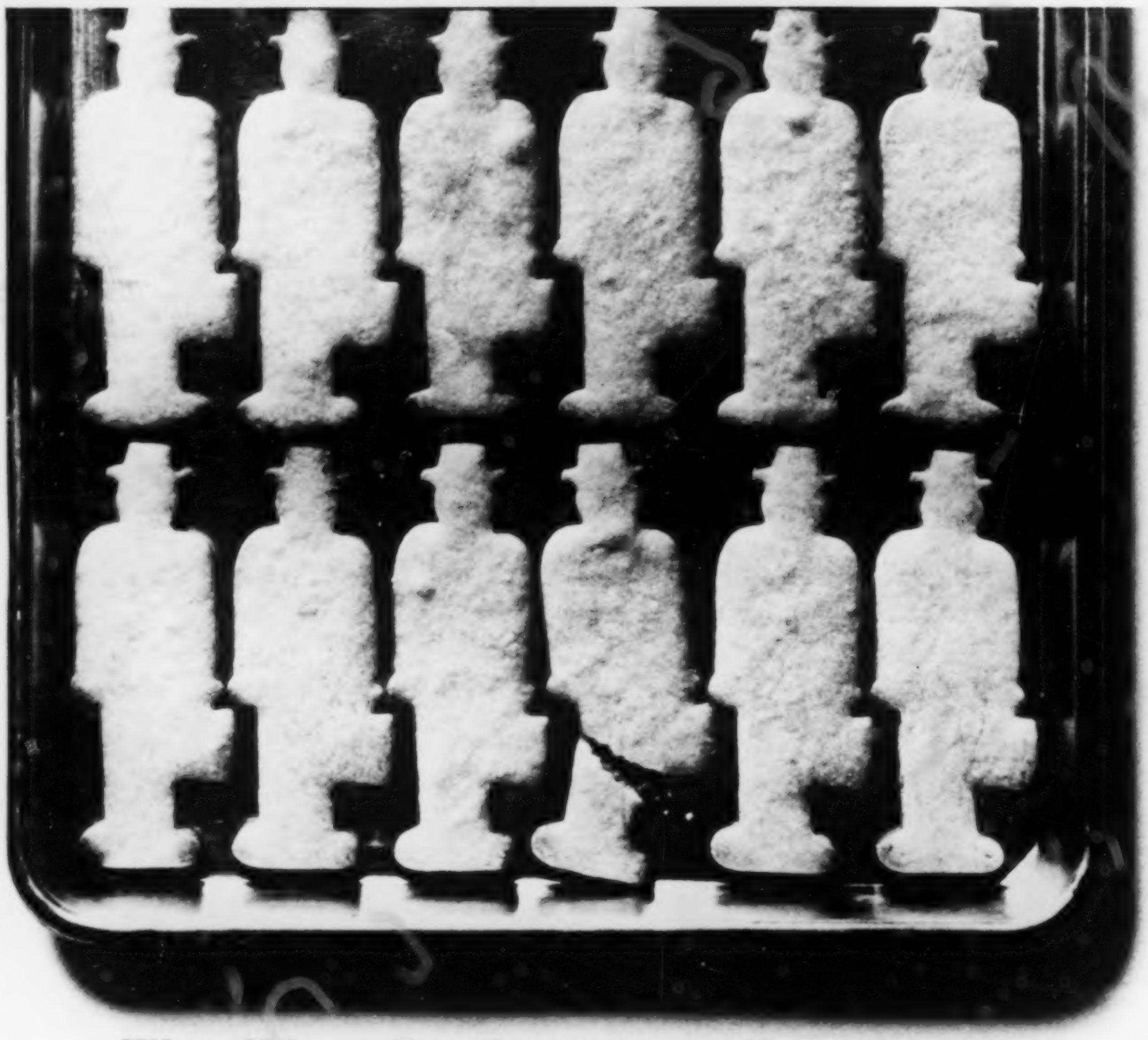
	($ millions)
Total assets*	8,827
Defined benefit	8,827
Employer DB contributions	331
Benefit payments	376
*book value	
Internally managed assets	8,827
Hedging devices used:	
Stock options	
Defined benefit asset mix:	
Stocks	8.7%
Fixed income	52.9%
Cash equivalents	7%
Real estate equity	0.4%
Mortgages	25.5%
Mortgage-backed securities	5.5%

MONTGOMERY, Ala. — As of Sept. 30, the Retirement Systems of Alabama's total employee benefit assets increased 12% to $8.827 billion from $7.884 billion a year earlier. All assets are defined benefit and internally managed.

Key personnel overseeing the investment management of the fund are David G. Bronner, chief executive officer; Hunter Reaves, director of fixed income; and Cheryl Duke, director of equities.

Alaska Retirement Syste

Total assets*	[illegible]
Defined benefit	[illegible]



WHAT WORKS FOR ONE MASTER TRUST CLIENT DOESN'T NECESSARILY WORK FOR ALL.

A lot of master trust providers seem to be cut from the same mold. They shape their services to fit the needs of the big guys, but there's not much flexibility when it comes to serving small and mid-size companies.

We take another tack. Because every client is different and has different needs, we roll out our master trust and custody services to suit each one. And we still give you all the sophisticated systems you'd expect from someone much larger.

We're not the biggest in the business, but that only helps make our services all the more pliable. It's how we build long-term relationships that don't crumble.

For information, including our brochure, call James F. Winters, III, at (404) 588-8636.

SUNTRUST
MASTER TRUST & CUSTODY SERVICES

SunTrust is a service mark of SunTrust Banks, Inc.

HANOVER CAPITAL ASSET MANAGEMENT, INC.
90 West Street, Suite 608
New York, New York 10006 212-732 4272 FAX (212) 732-4728

ACTIVE INVESTMENT MANAGEMENT OF MORTGAGE-BACKED SECURITIES

Marilyn J. Dicks
President & C.E.O.

Irma N. Tavares
Managing Director

Employer DB contributions	na
Benefit payments	na
*as of June 30, 1990	

Internally managed assets	2,470
Defined benefit asset mix:	
Stocks	31.3%
Fixed income	51.7%
Cash equivalents	7.2%
Real estate equity	5.6%
Mortgages	4.2%

JUNEAU, Alaska — As of June 30, the Alaska Retirement Systems' total employee benefit assets increased 7.4% to $4.43 billion from $4.124 billion Sept. 30, 1989. All assets are defined benefit.

Equity managers: Domestic — Fred Alger; IDS; INVESCO; Lehman Ark; Loomis, Sayles; Miller, Anderson & Sherrerd; State Street Bank; United Capital Management.

International — Citibank; J.P. Morgan.

Real estate managers: Aetna; Equitab[illegible]hn Hancock; JMB; Karsten; J.P. Morgan; Prudential; and Sentinel.

The master custodian is CoreStates; the investment consultant is SEI.

Key personnel overseeing the investment management of the fund are Hugh Malone, commissioner-revenue; Milt Barker, deputy commissioner; Steven R. Stein, chief investment officer.

Allied-Signal Inc.

	($ millions)
Total assets	5,770
Defined benefit	4,070
Thrift or savings	1,700
Employer DB contributions	67
Benefit payments	260
Employer DC contributions	na

Internally managed assets:	
Total DB	1,140
Hedging devices used:	
Stock options	
Bond options	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	47%
Fixed income	35%
Cash equivalents	6%
Real estate equity	9%
Other	3%
Defined contribution asset mix:	
Company stock	44%
Other stock	11%
GICs/BICs	45%

MORRISTOWN, N.J. — As of Sept. 30, Allied-Signal Inc.'s total employee benefit assets decreased 17.6% to $5.77 billion from $7 billion as of June 30 the previous year. Defined benefit assets decreased 18.6% during the same period, to $4.07 billion from $5 billion. Defined contribution assets decreased 15% to $1.7 billion from $2 billion.

The master trustees are Northern Trust for the defined benefit plan and State Street for the defined contribution plan.

Key personnel overseeing the investment management of the fund are Edward Tokar, vice president-investments; Mark E. Smith, senior portfolio manager; and Jay W. Burden, portfolio manager.

Aluminum Co. of America

	($ millions)
Total assets	3,270
Defined benefit	2,600
401(k)	670
Employer DB contributions	70
Benefit payments	192
Employer DC contributions	20

Hedging devices used:	
Stock index futures	
Fixed-income futures	
Short selling	
Defined benefit asset mix:	
Stocks	18%
Fixed income	65.5%
Real estate equity	2%
Mortgages	11.5%
Other	3%
Defined contribution asset mix:	
Company stock	23.4%
Other stock	6.1%
GICs/BICs	70.5%

PITTSBURGH — As of Sept. 30, Aluminum Co. of America's total employee benefit assets increased 2.2% to $3.27 billion from $3.2 billion a year earlier. Defined benefit assets decreased 2.3% during the same period, to $2.6 billion from $2.66 billion a year. Defined contribution assets increased 24%, to $670 million from $540 million.

Equity managers: Domestic — Franklin Portfolio; Geewax, Terker; Rosenberg Institutional; State Street Bank; Wells Fargo.

International — Capital Guardian; Mercator Asset Management.

Fixed-income managers: Domestic — Massachusetts Financial; Mellon Bank; Prudential; STW Fixed Income.

International — Massachusetts Financial; Prudential.

Real estate managers: Coldwell Banker; Equitable; John Hancock; RREEF.

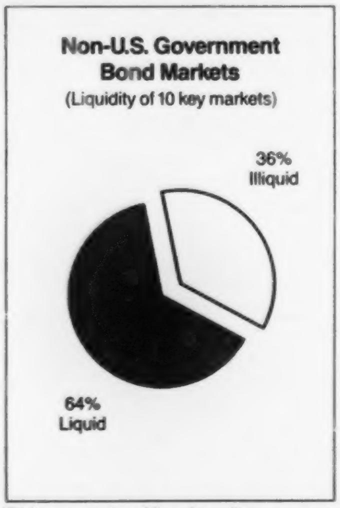
The master trustee and global custodian is Mellon Bank.

Key personnel overseeing the investment management of the fund a[illegible] Joseph Pellegrino, director-pension [illegible]vestments; and Donna S. Borr, [illegible] investment analyst.

Emerging markets: Marc[illegible]

Finally,
a global bond index
based on government bonds
that actually trade.

By tracking only actively traded bonds, the J.P. Morgan Government Bond Index is the fairest way to measure an investment manager's fixed-income performance. The Index includes only liquid issues in each of 11 markets, providing a daily benchmark for your portfolio performance that is based on reliable prices and is more reflective of actual market risks. With daily market prices and all settlement and interest calculations performed according to individual market conventions, the Index is becoming the preferred benchmark for investor performance in the global bond markets.



With international bond markets varying widely in liquidity, an investment manager's portfolio can have a very different market exposure from a benchmark that includes illiquids.

For more information on
the J.P. Morgan
Government Bond Index,
call your consultant, or
Sharon O'Connor,
J.P. Morgan Securities Inc.,
(212) 648-0870.

JPMorgan

© 1990 J.P. Morgan & Co. Incorporated.
J.P. Morgan Securities Inc. is a member of S.I.P.C.

American Airlines Inc.

	($ millions)
Total assets	3,800
Defined benefit	2,000
Total defined contribution	1,300
401(k)	500
Other	1,300
Employer DB contributions	160
Benefit payments	75
Employer DC contributions	85
Internally managed assets:	
Total DB	100
Defined benefit asset mix:	
Stocks	30%
Fixed income	65%
Cash equivalents	5%
Defined contribution asset mix:	
Other stock	90%
Cash equivalents	10%

DALLAS-FORT WORTH INTERNATIONAL AIRPORT — As of Sept. 30, American Airlines' total employee benefit assets decreased 5% to $3.8 billion from $4 billion a year earlier. Defined benefit assets remained the same at $2 billion . Defined contribution assets decreased 10%, to $1.8 billion from $2 billion.

Equity managers: Domestic — Atlanta Capital; Barrow Hanley; Boatmen's; Capital Guardian; Cashman Farrell; Dewey Square; Dreman; Genucheau, Stupfel; Hotchkis & Wiley; Independence; NCNB-Texas; Penmark; United Capital.

International — H.D. International; Morgan Grenfell; Morgan Stanley; Rowe Price-Fleming; Templeton.

The master trustee is NCNB-Texas; the global custodian is Chase.

Key personnel overseeing the investment management of the fund are William F. Quinn, president-AMR Investment Services, and Dennis M. O'Hara, vice president, AMR Investment Services.

Top 200 funds by category

Top corporate funds

Fund	($ millions)
AT&T	38,876
General Motors	36,300
General Electric	27,108
IBM	25,000
Ford Motor	20,800
Du Pont	17,728
NYNEX	14,383
BellSouth	14,125
Bell Atlantic	13,943
Ameritech	13,241
Total	**221,504**

Top miscellaneous funds

Fund	($ millions)
TIAA-CREF	83,100
United Nations	8,591
Federal Retirement Thrift	6,890
United Methodist Church	3,459
World Bank	3,171
Tennessee Valley Authority	2,834
Mass. PRIM	2,700
Southern Baptist	2,680
Presbyterian Church	2,300
Episcopal Church	1,850
Total	**117,575**

Top public funds

Fund	($ millions)
California Employees	54,000
New York State & Local	43,737
New York City	40,763
California State Teachers	30,140
New York State Teachers	26,689
New Jersey	26,609
Texas Teachers	23,734
Ohio Employees	20,598
Florida State Board	19,268
Wisconsin State Board	18,482
Total	**304,020**

Top union funds

Fund	($ millions)
Teamsters, Central States	9,398
Teamsters, Western	9,292
UMWA	4,759
Nat'l Electrical Contractors	3,692
Boilermaker/Blacksmith	2,395
Operating Engineers	2,114
S. California UFCW	2,073
Bakery & Confectionery	2,070
Hospital/Health Care	1,932
Sheet Metal Workers	1,686
Total	**39,411**

American Electric Power Service Corp.

	($ millions)
Total assets	1,842
Defined benefit	1,205
Total defined contribution	637
Thrift or savings	624
ESOP	13
Employer DB contributions	9
Benefit payments	58
Employer DC contributions	16
Hedging devices used:	
Stock options	
Stock index futures	
Defined benefit asset mix:	
Stocks	60%
Fixed income	22%
Cash equivalents	13%
Real estate equity	1%
Other	4%
Defined contribution asset mix:	
Company stock	35%
Other stock	10%
GICs/BICs	55%

COLUMBUS, Ohio — As of Sept. 30, American Electric Power Service Corp.'s total employee benefit assets increased almost 3% to $1.842 billion from $1.789 billion a year earlier. Defined benefit assets decreased 4.4% during the same period, to $1.205 billion from $1.26 billion. Defined contribution assets increased 20.4%, to $637 million from $529 million.

The master trustees are Ameritrust and Bank of New York.

Key personnel overseeing the investment management of the fund are Gerald P. Maloney, senior vice president-finance, and Joseph H. Shepard Jr., manager-corporate benefit fund.

American Information Technologies Inc.

	($ millions)
Total assets	13,241
Defined benefit	11,000
401(k)	2,241
Employer DB contributions	0
Benefit payments	548
Employer DC contributions	7
Internally managed assets:	
Total DB	2,981
Hedging devices used:	
Stock options	
Bond options	
Stock index futures	
Defined benefit asset mix:	
Stocks	49%
Fixed income	34%
Cash equivalents	2%
Real estate equity	12%
Venture capital	3%
Defined contribution asset mix:	
Company stock	46%
Other stock	18%
Fixed income	3%
GICs/BICs	33%

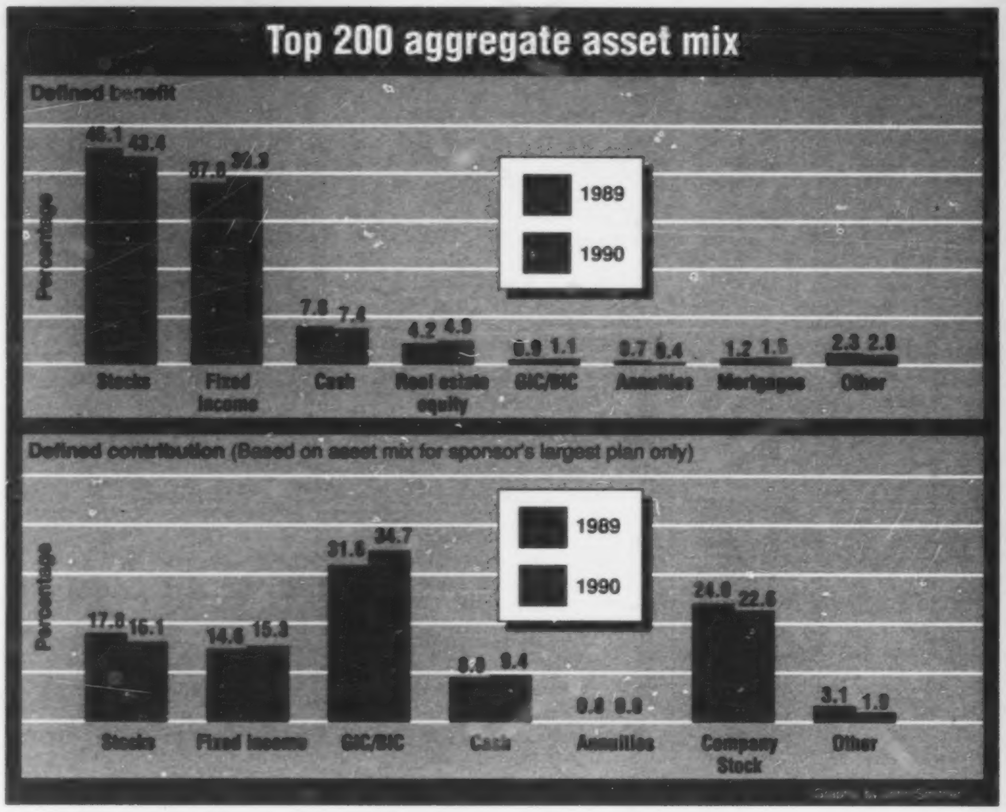
CHICAGO — As of Sept. 30, American Information Technologies Corp.'s total employee benefit assets decreased 7.4% to $13.241 billion from $14.3 billion a year earlier. Defined benefit assets decreased 9.1% during the same period, to $11 billion from $12.1 billion. Defined contribution assets increased 1.9%, to $2.241 billion from $2.2 billion.

Managers: Ameritrust; Bankers Trust; Baring International; Brinson Partners; Capital Guardian Trust; Concord Capital; David J. Greene; Delaware Investment Advisors; First Wisconsin Asset; First Wisconsin Trust; Goldman Sachs Asset; Harris Derivative; Henry Kaufman; Hyperion Capital; IDS International; INVESCO; Jennison Associates; Lincoln Capital; Loomis, Sayles; Lord, Abbett; NISA; Neuberger & Berman; RCM Capital; Sit Investment; Travelers.

The master trustee and global custodian is Harris Trust & Savings Bank; *the investment consultant is Callan Associates.*

Judith W. Mares, chief investment officer, is the key person overseeing the fund.

Top 200 aggregate asset mix



American Stores Co.

	($ millions)
Total assets	1,854
Defined benefit	53
Profit-sharing	1,801
Employer DB contributions	68
Benefit payments	175
Employer DC contributions	70
Hedging devices used:	
Stock options	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	8.4%
Fixed income	66.5%
Cash equivalents	2.4%
Annuities	5.9%
Mortgage-backed securities	16.8%
Defined contribution asset mix:	
Company stock	5.1%
Other stock	39.1%
Fixed income	39.5%
Cash equivalents	5%
Mortgage-backed securities	5.6%
Participant loans	1.4%
Real estate securities	4.3%

SALT LAKE CITY — As of Sept. 30, American Stores Co.'s total employee benefit assets decreased 1.5% to $1.854 billion from $1.882 billion a year earlier. Defined benefit assets increased 6% during the same period, to $53 million from $50 million. Defined contribution assets decreased 1.7%, to $1.8 billion from $1.832 billion.

Equity managers: Domestic — Institutional Capital; Lazard Freres; Neuberger & Berman; PIMCO; RCM; Fayez Sarofim; Templeton; and Wells Fargo.

International — Baring; Institutional Capital; Lazard Freres; Nomura; Rowe-Price Fleming International; Fayez Sarofim; and Templeton.

Fixed-income managers: Domestic — Institutional Capital; Lazard Freres; Neuberger & Berman; PIMCO; Templeton; and Western Asset.

International — Baring; Rowe-Price Fleming; and Templeton.

Real estate managers: Coldwell Banker; Hancock; LaSalle; and RREEF.

The master trustee and global custodian is Bankers Trust; the investment consultant is Evaluation Associates.

Key personnel overseeing the investment management of the fund are Scott Bergeson, senior vice president-benefits administration, and Duane Whitney, controller-benefits.

American Telephone & Telegraph Co.

	($ millions)
Total assets	38,876
Defined benefit	30,777
Total defined contribution	8,099
Thrift or savings	7,224
ESOP	481
Other	394
Employer DB contributions	416
Benefit payments	1,241
Employer DC contributions	329
Internally managed assets:	
Total DB	2,504
Hedging devices used:	
Stock index futures	
Defined benefit asset mix:	
Stocks	53%
Fixed income	28%
Real estate equity	14%
Other	5%
Defined contribution asset mix:	
Company stock	42%
Other stock	10%
Fixed income	8%
GICs/BICs	40%

BERKELEY HEIGHTS, N.J. — As of Sept. 30, American Telephone & Telegraph Co.'s total employee benefit assets decreased 9% to $38.876 billion from $42.7 billion a year earlier. Defined benefit assets decreased 8% during the same period, to $30.777 billion from $33.376 billion. Defined contribution assets decreased 13%, to $8.099 billion from $9.324 billion.

Managers: Abbott Capital; Aldrich, Eastman & Waltch; Coldwell Banker; Corporate Property Investors; JMB Realty; O'Connor Management; Bankers Trust; Batterymarch; Boston Co. Real Estate; Brown Brothers Harriman; Butler Capital; Capital Guardian; Chase Investors; Chancellor Trust; Chemical Bank; Copley; Denver Investment; Dusco; Eastdil; Equitable Life; Fidelity International; First National Bank of Atlanta; First Reserve Energy Advisors; Goldman, Sachs; GT Capital; Heitman Financial; INVESCO; Investment Counselors of Maryland; Ivory & Sime; Jennison; John Hancock; Karsten; Lincoln Capital; Loomis, Sayles; Lord, Abbett; Mitchell, Hutchins; Mellon Bank; Morgan Grenfell; J.P. Morgan; NCNB-Texas; PIMCO; Prudential Asset; Rosenberg Real Estate; RCM Capital; Standish, Ayer & Wood; State Street Bank; State Street Research; United Capital; Warburg, Pincus; Wellington Management; and Western Asset.

The trustees are Bankers Trust, Chase Manhattan, Citibank, Mellon, Northern Trust and State Street Bank; the global custodian is Chase Manhattan; the investment consultant is Frank Russell Co.

Key personnal overseeing the investment management of the fund are David P. Feldman, corporate vice president-investment management, and Robert E. Angelica, investment vice president.

Amoco Corp.

	($ millions)
Total assets	4,665
Defined benefit	2,165
Defined contribution	2,500
Employer DB contributions	0
Benefit payments	200
Employer DC contributions	57
Hedging devices used:	
Bond options	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	70%
Fixed income	16%
Cash equivalents	4%
Real estate equity	5%
Other	5%

CHICAGO — As of Sept. 30, Amoco Corp.'s total employee benefit assets increased 1.8% to $4.665 billion from $4.581 billion a year earlier. Defined benefit assets decreased 16.4% during the same period, to $2.165 billion from $2.59 billion. Defined contribution assets increased 25.5%, to $2.5 billion from $1.991 billion.

Equity managers: Domestic — Chase Investors; Dimensional; Forstmann-Leff; Franklin Portfolio; Fayez Sarofim; State Street Research.

International — Acadian; Boston International; State Street Bank.

Fixed-income managers: Domestic — Fischer, Francis, Trees & Watts; PIMCO; Security Capital.

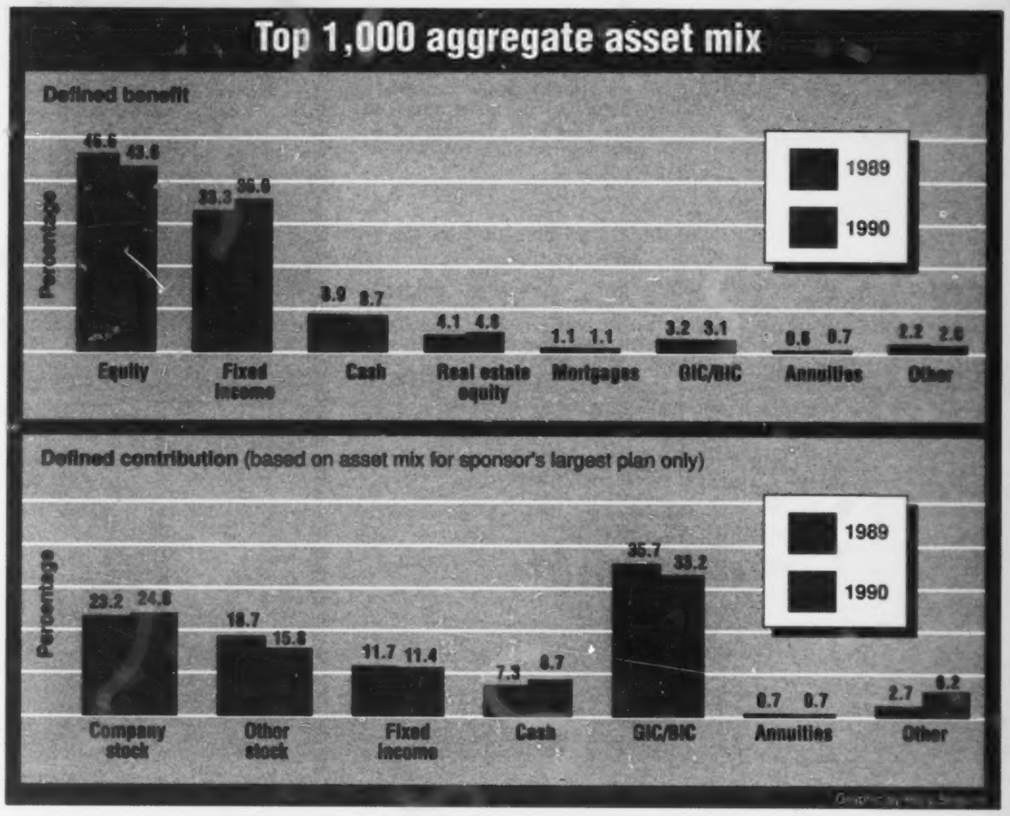
Real estate manager: Equitable.

The master trustee and global custodian is Chase Manhattan.

Key personnel overseeing the investment management of the fund are Marvin L. Damsma, director-pension administration, and John S. Ruey, administrative manager-investments.

Anheuser-Busch Cos. Inc.

	($ millions)
Total assets	1,986
Defined benefit	952
Total defined contribution	1,034
401(k)/ESOP	960
Other	74
Employer DB contributions	26
Benefit payments	na
Employer DC contributions	35
Defined benefit asset mix:	
Stocks	45%
Fixed income	43%
Cash equivalents	2%
Real estate equity	5%
GICs/BICs	5%
Defined contribution asset mix:	
Company stock	92%
Other stock	2%
Cash equivalents	2%
GICs/BICs	4%


Top 1,000 aggregate asset mix

ST. LOUIS — As of Sept. 30, Anheuser-Busch Cos. Inc.'s total employee benefit assets increased 18.9% to $1.986 billion from $1.67 billion a year earlier. Defined benefit assets decreased 4.3% during the same period, to $952 million from $995 million. Defined contribution assets increased 53.2%, to $1.034 billion from $675 million.

Equity managers: Domestic — Boatmen's; Dalton; Independence; Mellon Capital; Frank Russell; and Vanguard.

Fixed-income managers: Domestic — Boatmen's; Equitable Capital; General American; Independence; Mellon Capital; J.P. Morgan; and Frank Russell.

Real estate managers: Aetna; Equitable; JMB; and LaSalle.

The master trustee is Boatmen's.

Key personnel overseeing the investment management of the fund are Jerry Ritter, vice president-group executive; Gerald Thayer, vice president-treasurer; David C. Sauerhoff, manager-corporate pension investments.

Arizona State Retirement System

	($ millions)
Total assets	7,234
Defined benefit	7,234
Employer DB contributions	64
Benefit payments	292
Defined benefit asset mix:	
Stocks	39%
Fixed income	47%
Cash equivalents	10.6%
Mortgages	3.4%

PHOENIX, Ariz. — As of Sept. 30, the Arizona State Retirement System's total employee benefit assets decreased 5% to $7.234 billion from $7.612 billion a year earlier. All assets are in defined benefit plans.

Equity managers: Domestic — Boston Co.; IDS; INVESCO; J.P. Morgan; and Wells Fargo.

International — State Street Bank and Warburg.

Fixed-income managers: Domestic — Boston Co.; Duff & Phelps; IDS; INVESCO; J.P. Morgan; and Wells Fargo.

Real estate manager: Valley National Bank.

The master custodian is Mellon Bank; the global custodians are Mellon Bank and State Street Bank; the investment consultant is Mercer.

The key person overseeing the investment management of the fund is Douglas Lemon, assistant director.

Arkansas Teacher Retirement System

	($ millions)
Total assets	2,216
Defined benefit	2,216
Employer DB contributions	87
Benefit payments	92
Internally managed assets	283
Defined benefit asset mix:	
Stocks	35.4%
Fixed income	48.5%
Cash equivalents	12.9%
Mortgages	3.2%

LITTLE ROCK, Ark. — As of Sept. 30, the Arkansas Teacher Retirement System's total employee benefit assets increased 2.3% to $2.216 billion from $2.166 billion as of Aug. 31, 1989. All the assets are in defined benefit plans.

Equity managers: Domestic — Oppenheimer.

Fixed-income managers: Domestic — Commercial Capital.

The master custodian is First Commercial Bank; the investment consultant is Shearson Lehman Brothers.

Key personnel overseeing the investment management of the fund are Bill A. Shirron, executive director, and Mavolene C. Booth, associate director-investments.

Armco Inc.

	($ millions)
Total assets	1,995
Defined benefit	1,798
Total defined contribution	197
Thrift or savings	191
401(k)	6
Employer DB contributions	120
Benefit payments	177
Employer DC contributions	9
Internally managed assets:	
Total DB	741
Defined benefit asset mix:	
Stocks	43.3%
Fixed income	41.6%
Cash equivalents	5.7%
Real estate equity	0.1%
GICs/BICs	0.6%
Venture capital	0.3%
Cash receivable	2.4%
Defined contribution asset mix:	
Company stock	20%
Other stock	8%
GICs/BICs	72%

PARSIPPANY, N.J. — As of Sept. 30, Armco Inc.'s total employee benefit assets decreased 7.5% to $1.995 billion from $2.156 billion a year earlier. Defined benefit assets decreased 6.2% during the same period, to $1.798 billion from $1.917 billion. Defined contribution assets decreased 17.6%, to $197 million from $239 million.

Equity managers: Domestic — Alliance; Capital Guardian; Columbus Circle; Lincoln Capital; Mellon Capital; and Miller, Anderson & Sherrerd.

International — Capital Guardian and Oechsle.

Real estate manager: RREEF.

Other managers: Allsop; Brentwood; Concord Partners; DSV; Equitable; John Hancock; and North American Private Equity.

The master trustee and global custodian is Chase Manhattan; the investment consultant is SEI.

The key person overseeing the investment management of the fund is Dennis F. Furey, general manager-pension investments.

Atlantic Richfield Co.

	($ millions)
Total assets	3,575
Defined benefit	2,110
Total defined contribution	1,465
Thrift or savings	583
401(k)	882
Employer DB contributions	6
Benefit payments	156
Employer DC contributions	68
Internally managed assets:	
Total DB	1,367
Total DC	11
Defined benefit asset mix:	
Stocks	43%
Fixed income	25%
Cash equivalents	19%
Real estate equity	8%
Mortgages	1%
GICs/BICs	1%
Other	3%
Defined contribution asset mix:	
Company stock	74%
Other stock	3%
Fixed income	1%
Cash equivalents	22%

LOS ANGELES — As of Sept. 30, Atlantic Richfield Co.'s total employee benefit assets increased 1% to $3.575 billion from $3.541 billion a year earlier. Defined benefit assets decreased 11.6% during the same period, to $2.11 billion from $2.388 billion. Defined contribution assets increased 27%, to $1.465 billion from $1.153 billion.

Equity managers: Domestic — GAMCO; Pacific Financial Research; W.H. Reaves; and Donald Smith & Co.

International — Capital Guardian Trust; Capital International; Emerging Markets Investors; G.T. Capital; Rowe Price-Fleming; and TCW.

Fixed-income managers: Domestic — Cypress Capital; MacKay-Shields; J.P. Morgan; and Weiss, Peck & Greer.

International — Baring International.

Real estate managers: Aldrich, Eastman & Waltch; Lehndorff Management; and Metric Institutional Realty.

Cash equivalent managers: Payden & Rygel and Security Pacific.

The master trustee and global custodian is State Street Bank; the investment consultant is Collins Associates.

Key personnel overseeing the investment management of the fund are E. Kent Damon Jr., senior vice president and Rene T. Coupillaud, controller.

Top defined benefit plans

Fund	($ millions)
California Employees	54,000
New York State & Local	43,737
New York City	40,763
AT&T	30,777
General Motors	30,700
California Teachers	30,140
New York State Teachers	26,689
New Jersey	26,335
Texas Teachers	23,734
General Electric	22,474
Total	**329,349**

Top defined contribution plans

Fund	($ millions)
TIAA-CREF	83,100
AT&T	8,099
Federal Retirement Thrift	6,890
Du Pont	6,280
Procter & Gamble	5,857
General Motors	5,600
Boeing	5,200
Sears, Roebuck	4,684
General Electric	4,634
Exxon	4,612
Total	**134,956**

B

Bakery & Confectionery Union & Industry International Pension Fund

	($ millions)
Total assets	2,070
Defined benefit	2,070
Employer DB contributions	156
Benefit payments	153
Internally managed assets:	
Total DB	145
Hedging devices used:	
Stock options	
Defined benefit asset mix:	
Stocks	39%
Fixed income	42.1%
Cash equivalents	9.1%
Mortgages	8.8%
GICs/BICs	1%

KENSINGTON, Md. — As of Sept. 30, the Bakery & Confectionery Union & Industry International Pension Fund's total employee benefit assets decreased 4.8% to $2.07 billion from $2.175 billion a year earlier. All of the assets are defined benefit.

Balanced managers: Lazard Freres; Loomis, Sayles; Mitchell Hutchins; Stein, Roe; Trust Co. of the West; and Wertheim.

Equity managers: Domestic — Eagle.

International — Mu-Cana and Royal Trust.

Fixed-income managers: Domestic — Amalgamated; Bridgewater; and Prudential.

International — Mu-Cana and Royal Trust.

Real estate managers: AFL-CIO Housing Investment Trust/Building Investment Trust.

The master custodian for U.S. securities is Mercantile Safe Deposit; the master custodian for Canadian securities is Royal Trust.

Key personnel overseeing the investment management of the fund are John J. Fleming, administrative director; and Richard Swift, director of investments.

Bechtel Power Corp.

	($ millions)
Total assets	1,618
Total defined contribution	1,618
Profit-sharing	478
401(k)	1,140
Employer contributions	na
Internally managed assets	517
Hedging devices used:	
Stock options	
Stock index futures	
Fixed-income futures	
Defined contribution asset mix:	
Domestic stock	31%
Fixed income	27%
Cash equivalents	8%
GICs/BICs	1%
Real estate equity	6%
Non-U.S. stocks	16%
Non-U.S. fixed income	11%

SAN FRANCISCO — As of Sept. 30, Bechtel Power Corp.'s total employee benefit assets decreased 2.2% to $1.618 billion from $1.655 billion a year earlier. All are defined contribution assets.

Equity managers: Domestic — BEA; Columbia Management; Dodge & Cox; Fremont; Morgan Grenfell; Sit Investment; Wellington.

International — Acadian; Boston International; J.P. Morgan; Wells Fargo Nikko.

Fixed-income managers: Domestic — Columbia Management; Fremont; PIMCO.

International — J.P. Morgan and Wells Fargo Nikko.

Real estate managers: Aetna; Cabot, Cabot and Forbes; Corporate Property Investors; Prudential; RREEF.

Tactical asset allocation managers: Bailard, Biehl and Kaiser; Matrix; Quantilogic.

The master trustee and global custodian is Bankers Trust; the investment consultant is Fremont Investment.

Key personnel overseeing the investment management of the fund are David Redo and Vincent P. Kuhn Jr., investment managers.

Bell Atlantic Corp.

	($ millions)
Total assets*	13,943
Defined benefit	11,123
Total defined contribution	2,820
Thrift or savings	113
401(k)	2,453
ESOP	254

**P&I estimate*

PHILADELPHIA — As of Sept. 30, Bell Atlantic Corp.'s employee benefit assets totaled $13.943 billion according to *P&I* estimates. The estimate is based on $14.113 billion the company reported as of Dec. 31, 1989. That amounts to an estimated 2.3% increase from the $13.635 billion *P&I* estimated a year earlier. Defined benefit assets were estimated to have decreased 3.7% to $11.123 billion, while defined contribution assets were estimated to have increased 35.2% to $2.82 billion from $2.085 during the same period.

The master trustee of the pension trust is Mellon Bank; other trustees/custodians are Bankers Trust and Midlantic National Bank; the investment consultant is Frank Russell.

Key personnel overseeing the investment management of the fund are Joseph A. Bobrowski, executive director-trust administration; and Edward P. Rennie, executive director-trust investments.

BellSouth Corp.

	($ millions)
Total assets*	14,152

**as of June 30, 1990.*

ATLANTA — As of June 30, BellSouth Corp.'s total employee benefit assets increased 10.2% to $14.152 billion from $12.843 billion as of Sept. 30, 1989.

The key person overseeing the investment management of the fund is Kincaid Patterson, managing director-trust asset management.

Bethlehem Steel Corp.

	($ millions)
Total assets	3,080
Defined benefit	3,080
Employer DB contributions	337
Benefit payments	462
Internally managed assets	3,055
Defined benefit asset mix:	
Stocks	30%
Fixed income	63%
Cash equivalents	7%

BETHLEHEM, Pa. — As of Sept. 30, Bethlehem Steel Corp.'s total employee benefit assets decreased 2.4% to $3.08 billion from $3.155 billion a year earlier. All assets are defined benefit.

Equity managers: International — Putnam and J.P. Morgan.

The master trustee is Bankers Trust.

The key person overseeing the investment management of the fund is J. Gerard Mead, manager-pension fund.

Boeing Co.

	($ millions)
Total assets	11,600
Defined benefit	6,400
Defined contribution	5,200

SEATTLE — As of Sept. 30, the Boeing Co.'s total employee benefit assets increased 5.4% to $11.6 billion from the $11.001 billion *Pensions & Investments* estimated the company had a year earlier. Defined benefit assets decreased 5.8% during the same period, to $6.4 billion from an estimated $6.791 billion. Defined contribution assets increased 23.5%, to $5.2 billion from an estimated $4.21 billion.

Board of Trustees, Boilermaker-Blacksmith National Pension Trust

	($ millions)
Total assets	2,395
Defined benefit	2,395
Employer DB contributions	62
Benefit payments	107
Defined benefit asset mix:	
Stocks	40%
Fixed income	36%
Cash equivalents	8%
Real estate equity	11%
GICs/BICs	1%
Other	4%

KANSAS CITY, Kan. — As of Sept. 30, the Board of Trustees, Boilermaker-Blacksmith National Pension Trust's total employee benefit assets increased 12.3% to $2.395 billion from $2.132 billion as of June 30, 1989. All assets are defined benefit.

Equity managers: Domestic — Atalanta/Sosnoff; Carl Domino; Duff & Phelps; Fiduciary Management Associates; Lazard Freres; Neuberger & Berman; and Shields Asset.

Fixed-income managers: Domestic — Columbia Management; Duff & Phelps; Financial Counselors; Lehman Ark; Loomis-Sayles; and Scudder, Stevens & Clark.

Balanced managers: McMorgan and TCW.

Real estate managers: Equitable Real Estate; Karsten; J.P. Morgan; The New England; and Prudential.

The investment consultant is Callan.

Key personnel overseeing the investment management of the fund are V. Keith Reed, executive administrator, and David E. Hanson, financial director.

BP America Inc.

	($ millions)
Total assets	2,235
Defined benefit	1,274
401(k)	961
Employer DB contributions	58
Benefit payments	95
Employer DC contributions	78
Internally managed assets:	
Total DB	588
Hedging devices used:	
Stock options	
Bond options	
Stock index futures	
Fixed-income futures	
Short selling	
Defined benefit asset mix:	
Stocks	61.4%
Fixed income	23.7%
Cash equivalents	3.5%
Real estate equity	8.7%
Venture capital	2.7%
Defined contribution asset mix:	
Company stock	6.3%
Other stock	17.5%
Fixed income	0.4%
Cash equivalents	0.4%
GICs/BICs	75.4%

CLEVELAND — As of Sept. 30, BP America Inc.'s total employee benefit assets increased 0.7% to $2.235 billion from $2.218 billion a year earlier. Defined benefit assets decreased 8% during the same period, to $1.274 billion from $1.385 billion. Defined contribution assets increased 15.4% to $961 million from $833 million.

Equity managers: Domestic — Alliance Capital; Hotchkis & Wiley; Mellon Capital; United Capital; Value Line.

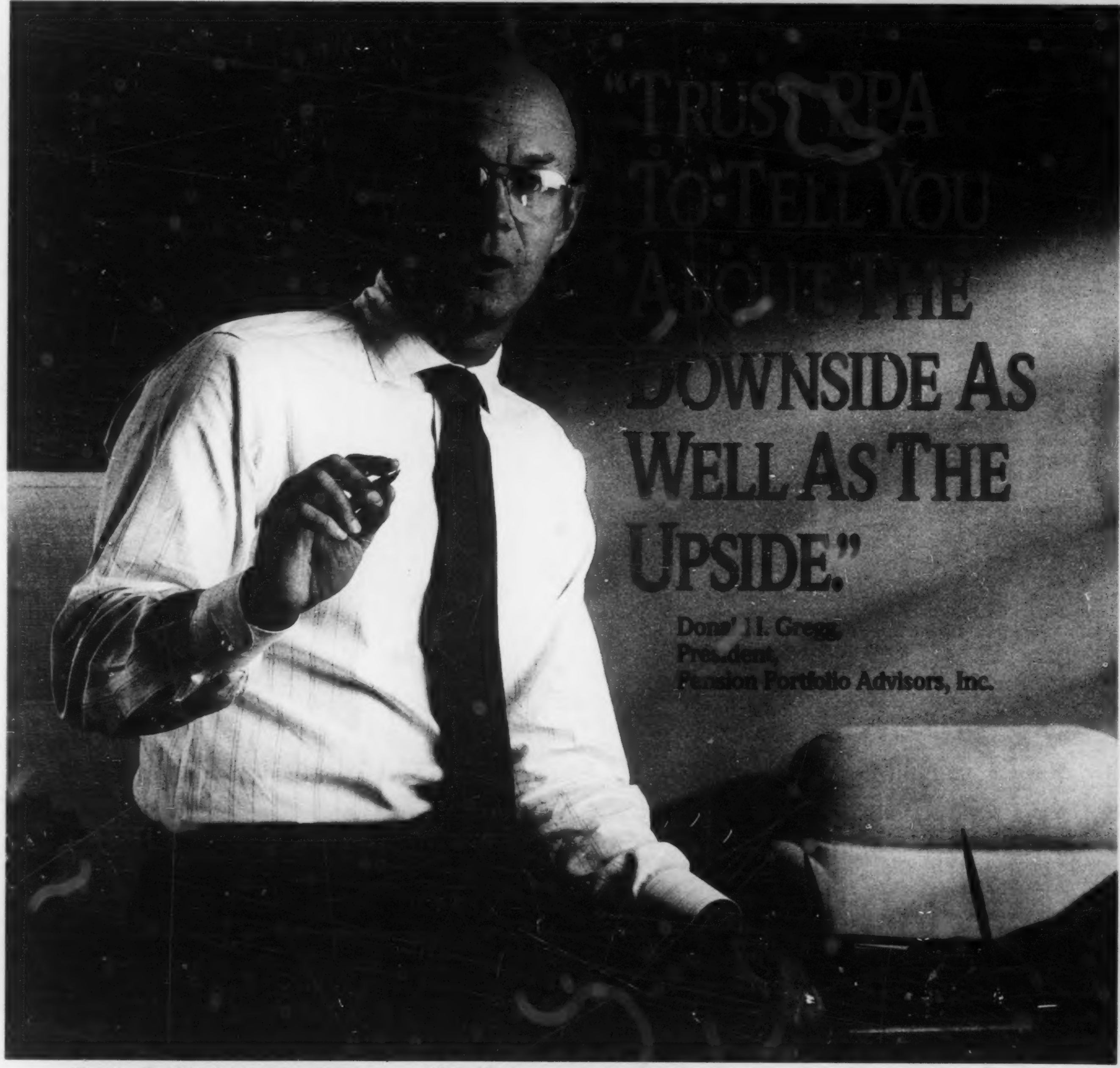
International — Baring International; Boston International Advisors; J.P. Morgan.

Fixed-income managers: Domestic — J.P. Morgan; Mellon Capital.

GE Investments

GE Investments
3003 Summer Street
Stamford, CT 06905
Geoffrey R. Norman
Executive Vice President
203 326-2316

Worldwide Diversified Money Management Services


"TRUST PPA TO TELL YOU ABOUT THE DOWNSIDE AS WELL AS THE UPSIDE."
Dona' I I. Gregg,
President,
Pension Portfolio Advisors, Inc.

"Pension Portfolio Advisors is an Investment Advisor, registered with the SEC, providing advisory services to sponsors of pension, profit sharing and 401(k) plans.

"In helping you develop an investment strategy, we begin with an Investment Policy Statement, which establishes realistic goals and a way to achieve them. One of the keys to this process is to identify the potential downside as well as the upside of your investments. Each money manager's style, past performance and potential future impact are elements of our systematic approach.

"Why? Because we believe that the choice of money managers shouldn't be based only on last year's or last quarter's results. A well-defined style is important, along with a *consistency* of approach. That is how we help you achieve the long-term performance you need.

"PPA functions best as an extension of your organization, with shared accountability for the results. That's why we set up a multi-year system to achieve your goals. We are not in this for short-term gains. Our job is to help you orchestrate a strategy that will minimize the volatility of your plan investments, avoiding any 'negative surprises.'

"We understand that your plan is a promise to your employees–and our job is to help you fulfill that promise, year after year."

Call or write today:
25800 Northwestern Highway
P.O. Box 2165
Southfield, MI 48037
313/357-4125

PENSION PORTFOLIO ADVISORS
WE MANAGE PERFORMANCE SM

Real estate managers: TCW.

The master trustees are Bankers Trust and National City Bank; the global custodian is Bankers Trust; the investment consultant is Frank Russell.

Key personnel overseeing the investment management of the fund are Rodney F. Chase, executive vice president-finance and chief financial officer, and Howard W. Harpster, director-pension investments.

C

California Public Employees' Retirement System

	($ millions)
Total assets	54,000
Defined benefit	54,000
Employer DB contributions	1,892
Benefit payments	na
Internally managed assets	48,400
Defined benefit asset mix	
Stocks	39.83%
Fixed income	39.79%
Cash equivalents	5.24%
Real estate equity	9.47%
Mortgages	5.62%
Other	0.05%

SACRAMENTO — As of Sept. 30, the California Public Employees' Retirement System's total employee benefit assets, at $54 billion, were unchanged from a year earlier. All assets are defined benefit.

Equity managers: Domestic — Boston Co.; Dimensional; Oppenheimer Capital; RCM; Roll & Ross; State Street Bank; TCW.

International — Brinson; County NatWest; Fiduciary Trust; Morgan Grenfell; Nomura Capital; Oechsle; Schroder Capital; State Street Bank; TCW Global.

Fixed-income managers: International — Baring; Fidelity; Warburg.

Real estate managers: Equitable; FIA; Heitman; LaSalle; TCW Realty.

The master custodian and global custodian is Boston Safe Deposit; the investment consultant is Wilshire.

Key personnel overseeing the investment management of the fund are DeWitt Bowman, chief investment officer; and Dale Hanson; chief executive officer.

California State Teachers' Retirement System

	($ millions)
Total assets	30,140
Defined benefit	30,140
Employer DB contributions	901
Benefit payments	1,598
Internally managed assets	17,942
Hedging devices used	
Stock index futures	
Defined benefit asset mix	
Stocks	36.9%
Fixed income	48.7%
Cash equivalents	6.8%
Real estate equity	5.1%
Mortgages	2.1%
Other	0.4%

SACRAMENTO, Calif. — As of Sept. 30, the California State Teachers' Retirement System total employee benefit assets decreased 0.6% to $30.14 billion from $30.335 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Barrow, Hanley; Denver Investment; Pilgrim, Baxter; Provident Investment; TCW Asset; Wells Fargo Nikko; Wright Investors.

Real estate managers: Equitable Real Estate; Lehndorff & Babson; TCW Realty.

Alternative investment managers: Abbott.

The master custodian is State Street Bank; the investment consultants are Pension Consulting Alliance and Institutional Property Consultant.

Key personnel overseeing the investment management of the fund are Thomas Flanigan, chief investment officer; James Mosman, chief executive officer; and Sandra Parker, deputy chef executive officer.

Top 200 funds with defined benefit assets managed internally

($ millions)

Fund	Total	Equities	Bonds	Short-term	Real estate	Foreign stocks	Foreign bonds	Foreign cash	Other
California Employees	48,400	17,700	11,800	1,600	5,100	0	2,000	0	10,200
New York State & Local	36,745	13,914	18,928	1,316	0	0	0	0	2,587
New Jersey	26,335	12,725	12,634	976	0	0	0	0	0
New York State Teachers	24,527	13,019	9,198	642	20	0	0	0	1,648
Texas Teachers	23,734	9,431	11,400	200	2,324	397	0	0	0
General Electric	20,404	8,165	6,340	1,196	2,145	767	46	0	1,745
Ohio Employees	19,620	3,373	10,801	5,446	0	0	0	0	0
Ohio State Teachers	18,200	5,200	9,600	1,200	2,200	0	0	0	0
California State Teachers	17,942	0	15,310	2,632	0	0	0	0	0
Wisconsin State Board	17,790	8,812	6,749	1,217	692	154	166	0	0
State of Michigan	16,345	6,308	5,327	2,668	913	0	0	0	1,129
North Carolina	11,905	0	11,853	52	0	0	0	0	0
Florida State Board	11,778	4,599	6,200	947	32	0	0	0	0
IBM	11,600	na	na	na	na	na	na	na	na
Du Pont	11,267	5,826	3,746	1,352	0	309	34	0	0
University of California	11,216	8,755	2,154	101	0	35	171	0	0
Alabama Retirement	8,827	770	4,667	616	35	0	0	0	2,739
United Nations	8,591	1,427	1,372	236	748	1,792	2,169	607	240
USX	8,380	4,190	2,510	1,060	230	190	140	0	60
Tennessee Consolidated	8,148	2,531	4,505	428	0	410	274	0	0
Colorado Employees	7,873	2,882	3,551	445	542	0	0	0	453
South Carolina	7,728	0	7,487	241	0	0	0	0	0
Maryland State	7,457	844	6,324	289	0	0	0	0	0
Washington State Board	6,803	0	4,556	1,023	1,224	0	0	0	0
Texas Employees	6,242	1,599	4,582	61	0	0	0	0	0
Georgia Teachers	5,992	0	5,482	506	2	0	0	0	0
Minnesota State Board	5,278	402	4,670	206	0	0	0	0	0
Prudential Insurance	4,297	1,260	909	836	552	386	319	0	35
Bethlehem Steel	3,055	885	1,930	230	0	0	0	0	10
Oregon Employes	3,000	0	2,500	0	0	0	0	0	500
Ameritech	2,981	864	120	626	1,369	0	0	0	0
General Dynamics	2,641	445	2,011	0	0	0	0	0	185
GTE	2,623	896	1,723	0	0	4	0	0	0
AT&T	2,504	0	0	0	1,477	0	0	0	1,027
Alaska State	2,470	0	2,290	0	0	0	0	0	180
Metropolitan Life	2,403	na	na	na	na	na	na	na	na
Utah State	2,250	690	1,475	0	85	0	0	0	0
Sears, Roebuck	2,048	1,125	720	116	0	0	0	0	87
New Mexico Educational	1,990	265	1,600	83	0	22	0	0	0
Grumman	1,977	747	699	531	0	0	0	0	0
San Francisco City/County	1,950	574	1,376	0	0	0	0	0	0
Ohio Police & Firemen	1,940	0	1,788	152	0	0	0	0	0
Union Carbide	1,912	393	1,045	265	80	0	14	0	135
Textron	1,845	na	na	na	na	na	na	na	na
Aetna	1,775	1,037	131	10	96	77	0	0	424
Ohio School Employees	1,752	201	1,212	162	177	0	0	0	0
Deere	1,645	1,149	464	32	0	0	0	0	0
NYNEX	1,555	849	706	0	0	0	0	0	0
Kentucky Retirement	1,501	835	50	616	0	0	0	0	0
Atlantic Richfield	1,367	746	273	62	21	199	0	0	66
Travelers	1,363	425	137	7	65	157	26	0	546
Westinghouse Electric	1,349	778	571	0	0	0	0	0	0
Ford Motor	1,300	0	1,300	0	0	0	0	0	0
Commonwealth Edison	1,186	50	939	176	0	21	0	0	0
Chrysler	1,185	694	491	0	0	0	0	0	0
Connecticut Trust Funds	1,165	19	909	237	0	0	0	0	0
Allied-Signal	1,140	430	650	60	0	0	0	0	0
Illinois State Board	1,120	110	1,010	0	0	0	0	0	0
CIGNA	1,106	437	452	5	90	91	31	0	0
Pennsylvania School	1,100	350	750	0	0	0	0	0	0
Virginia Retirement	1,002	719	0	262	21	0	0	0	0
Martin Marietta	967	207	190	570	0	0	0	0	0
New York City	953	0	57	896	0	0	0	0	0
Equitable Life	895	184	578	12	84	37	0	0	0
New York Life	874	0	874	0	0	0	0	0	0
Hawaii Employees	855	17	112	6	354	5	0	0	361
Exxon	829	820	0	9	0	0	0	0	0
Nat'l Rural Electric Co-op	805	333	244	228	0	0	0	0	0
Armco	740	0	650	90	0	0	0	0	0
UMWA	675	0	515	160	0	0	0	0	0
Trans World Airlines	617	341	180	96	0	0	0	0	0
Kentucky Teachers	611	89	420	64	38	0	0	0	0
BP America	588	285	126	105	0	13	11	13	35
Chicago School	556	0	37	519	0	0	0	0	0
Louisiana Employees	518	0	518	0	0	0	0	0	0
Louisiana Teachers	503	0	0	503	0	0	0	0	0
Delta Air Lines	450	200	250	0	0	0	0	0	0
Digital Equipment	450	na	na	na	na	na	na	na	na
Chevron	405	0	0	405	0	0	0	0	0
Caterpillar	350	350	0	0	0	0	0	0	0
K mart	350	0	307	0	0	0	0	0	43
Oklahoma Teachers	350	0	60	200	0	0	0	0	90
Los Angeles City	300	0	0	300	0	0	0	0	0
Arkansas Teachers	283	0	0	283	0	0	0	0	0
Illinois Municipal	245	0	0	245	0	0	0	0	0
Rhode Island	205	0	0	205	0	0	0	0	0
United Methodist Church	175	0	136	35	4	0	0	0	0
Los Angeles Water & Power	162	0	0	162	0	0	0	0	0
Mississippi Employees	156	0	0	156	0	0	0	0	0
Citibank	152	0	0	0	117	35	0	0	0
Pacific Telesis	151	0	0	151	0	0	0	0	0
Bakery & Confectionery	145	0	0	0	0	0	0	0	145
NCR	140	na	na	na	na	na	na	na	na
Los Angeles Fire & Police	138	na	na	na	na	na	na	na	na
S. California Edison	125	90	0	0	0	0	0	0	35
Texaco	110	na	na	na	na	na	na	na	na
TRW	108	92	0	16	0	0	0	0	0
American Airlines	100	0	0	100	0	0	0	0	0
New Mexico Employees	100	0	15	80	5	0	0	0	0
United Parcel Service	97	0	0	0	12	0	0	0	85
Teamsters, Central States	69	0	o	59	0	0	0	0	10
Monsanto	67	0	67	0	0	0	0	0	0
Chicago Municipal	58	0	0	58	0	0	0	0	0
Johnson & Johnson	55	0	55	0	0	0	0	0	0
Kansas Employees	39	0	0	0	0	0	0	0	39
Southern Baptist	36	0	0	0	19	0	0	0	17
Iowa Employees	34	0	0	34	0	0	0	0	0
Chicago Police	30	0	0	30	0	0	0	0	0
S. California UFCW	30	0	0	23	4	0	0	0	3
Georgia-Pacific	28	na	na	na	na	na	na	na	na
Minnesota Mining & Mfg.	22	0	0	0	0	0	22	0	0
Illinois State Universities	22	22	0	0	0	0	0	0	0
Total	**499,347**	**152,485**	**227,368**	**36,929**	**28,857**	**5,863**	**5,423**	**629**	**24,859**

University of California

	($ millions)
Total assets	12,471
Defined benefit	11,216
Defined contribution	1,255
Employer DB contributions	162
Benefit payments	166
Employer DC contributions	na
Internally managed assets:	
Total DB	11,216
Total DC	1,255
Defined benefit asset mix:	
Stocks	66%
Fixed income	33%
Cash equivalents	1%

OAKLAND, Calif. — As of Sept. 30, the University of California's total employee benefit assets decreased 3.3% to $12.471 billion from $12.9 billion a year earlier. Defined benefit assets decreased 4.4% during the same period, to $11.216 billion from $11.736 billion. The defined contribution assets, in 403(b) plans, increased 7.8%, to $1.255 billion from $1.164 billion. All assets are managed internally.

Security Pacific is the master trustee and global custodian.

Key personnel overseeing the investment management of the fund are Herbert M. Gordon, treasurer, and Patricia A. Small, associate treasurer.

Caterpillar Inc.

	($ millions)
Total assets	4,221
Defined benefit	3,619
Total defined contribution	602
Profit-sharing	6
Thrift or savings	398
401(k)	198
Employer DB contributions	72
Benefit payments	233
Employer DC contributions	16
Internally managed assets:	
Total DB	350
Hedging devices used:	
Stock options	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	51%
Fixed income	36%
Cash equivalents	7%
Real estate equity	6%
Defined contribution asset mix:	
Company stock	100%

PEORIA, Ill. — As of Sept. 30, Caterpillar Inc.'s total employee benefit assets decreased 11.7% to $4.221 billion from $4.779 billion a year earlier. Defined benefit assets decreased 12.9% during the same period, to $3.619 billion from $4.154 billion. Defined contribution assets decreased 3.7%, to $602 million from $625 million.

Equity managers: Domestic — Caterpillar Investment; Delaware Investment; Jennison; Oppenheimer; PRIMECAP.

International — Baring International; Fidelity International; Mellon Capital; Mercator.

Fixed-income managers: Domestic (immunized) — Chase Investors and J.P. Morgan.

Real estate managers: Aetna; Brinson; Equitable; LaSalle.

Tactical asset allocation manager: Mellon Capital.

The master trustee and global custodian is Northern Trust; the investment consultant is Frank Russell.

Key personnel overseeing the investment management of the fund are Robert Frantz, manager-employee benefit funds; and Brian Christensen and Mike Pond, benefit funds coordinators.

Chevron Corp.

	($ millions)
Total assets*	7,157
Defined benefit	3,918
Total defined contribution	3,239
Employer DB contributions	0
Benefit payments	305
Employer DC contributions	49
**P&I estimate*	
Internally managed assets:	
Total DB	405
Hedging devices used:	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	44%
Fixed income	22%
Cash equivalents	19%
Real estate equity	10%
GICs/BICs	5%
Defined contribution asset mix:	
Company stock	84%
Other stock	3%
Cash equivalents	2%
GICs/BICs	11%

SAN FRANCISCO — *Pensions & Investments* estimates that as of Sept. 30, Chevron Corp.'s total employee benefit assets increased 1.2% to $7.157 billion from an estimated $7.069 billion a year earlier. Defined benefit assets decreased 8.4% during the same period, to $3.918 billion from $4.279 billion. Defined contribution assets increased 16.1%, to $3.239 billion from $2.79 billion. All figures are *P&I* estimates.

Equity managers: Domestic — Sanford Bernstein; Dodge & Cox; First Pacific; Franklin Asset; Jennison; Merus; J.P. Morgan; RCM; Rosenberg Institutional; and State Street Bank.

Fixed-income managers: Domestic — Discount Corp.; J.P. Morgan; PIMCO; State Street Research; and STW.

Real estate managers: Equitable; Prudential; and RREEF.

Other managers: Concord Partners; Hellman & Friedman; KKR; Mellon Capital; and Wells Fargo.

The master trustee is Bankers Trust; the investment consultant is Frank Russell.

Key personnel overseeing the investment management of the fund are M.R. Klitten, vice president-finance; D.G. Henderson, assistant comptroller; and N.G. Darling, manager-investment analysis.

Municipal Employees' Annuity and Benefit Fund of Chicago

	($ millions)
Total assets*	2,068
Defined benefit	2,068
Employer contributions	100
Benefit payments	125
**as of June 30, 1990*	
Internally managed assets	58
Hedging devices used:	
Stock options	
Defined benefit asset mix:	
Stocks	43%
Fixed income	29%
Cash equivalents	14%
Real estate equity	5%
Mortgages	4%
Venture capital	5%

CHICAGO — As of June 30, the Municipal Employees' Annuity and Benefit Fund of Chicago's total employee benefit assets increased 12.1% to $2.068 billion from $1.845 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Alliance; Ariel; Bankers Trust; Brinson Partners; Chancellor; Chicago Asset; Hawthorne; Keeley; Oppenheimer; and Weiss, Peck & Greer.

International — Frank Russell.

Fixed-income managers: Domestic — Alliance; Bankers Trust; Brinson Partners; Cisneros; and Hawthorne.

Real estate managers: Prudential; Public Storage; and Smith Barney Birtcher.

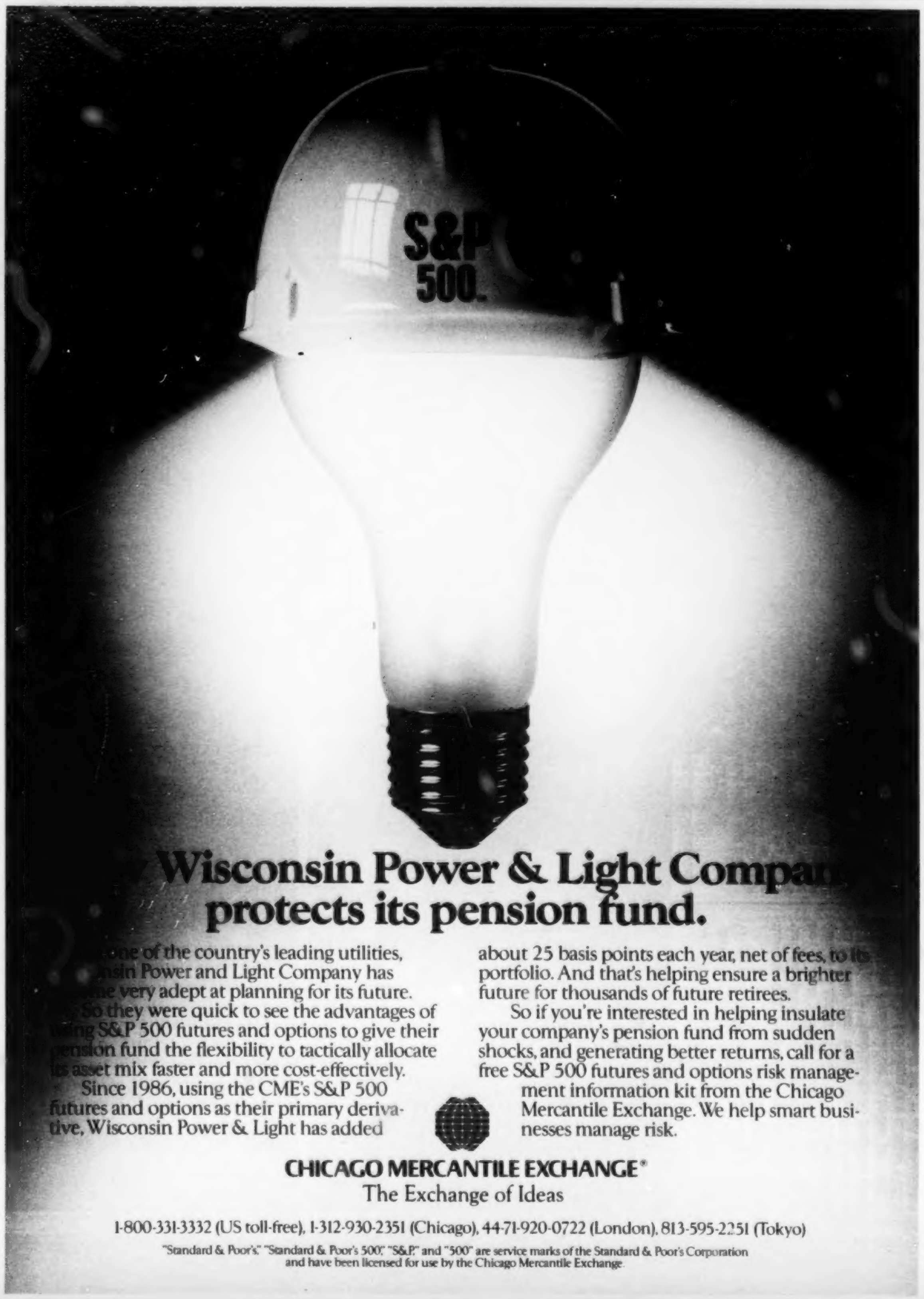
Other managers: Chancellor; First Analysis; and Mesirow.

The master custodian is Continental Illinois; the investment consultant is Becker, Burke.

Key personnel overseeing the investment management of the fund are Thomas J. Stack, executive director; Michael J. Nehf, comptroller; and Paul A. Cronin, accountant.

Policemen's Annuity & Benefit Fund of Chicago

	($ millions)
Total assets	1,571
Defined benefit	1,571
Employer DB contributions	82
Benefit payments	116
Internally managed assets	30
Defined benefit asset mix:	
Stocks	32.2%
Fixed income	48.8%



Wisconsin Power & Light Compan
protects its pension fund.

one of the country's leading utilities, nsin Power and Light Company has me very adept at planning for its future.

So they were quick to see the advantages of ing S&P 500 futures and options to give their ension fund the flexibility to tactically allocate ts asset mix faster and more cost-effectively.

Since 1986, using the CME's S&P 500 futures and options as their primary derivative, Wisconsin Power & Light has added about 25 basis points each year, net of fees, to its portfolio. And that's helping ensure a brighter future for thousands of future retirees.

So if you're interested in helping insulate your company's pension fund from sudden shocks, and generating better returns, call for a free S&P 500 futures and options risk management information kit from the Chicago Mercantile Exchange. We help smart businesses manage risk.

CHICAGO MERCANTILE EXCHANGE®
The Exchange of Ideas

1-800-331-3332 (US toll-free), 1-312-930-2351 (Chicago), 44-71-920-0722 (London), 813-595-2251 (Tokyo)

"Standard & Poor's," "Standard & Poor's 500," "S&P," and "500" are service marks of the Standard & Poor's Corporation and have been licensed for use by the Chicago Mercantile Exchange.

Cash equivalents	9%
Real estate equity	10%

CHICAGO — As of Sept. 30, the Policemen's Annuity & Benefit Fund of the City of Chicago's total employee benefit assets decreased 1.5% to $1.571 billion from $1.595 billion a year earlier. All assets are defined benefit assets.

Equity managers: Domestic — American National; Brinson; Chicago Asset; Chicago Corp.; Continental Capital; Oppenheimer; and Weiss, Peck & Greer.

International — Brinson; Rowe Price-Fleming; and State Street Bank.

Fixed-income managers: Domestic — American National; Brinson; Duff & Phelps; Kemper Asset; and Lincoln Capital.

International — Brinson Partners.

Real estate managers: Brinson; Heitman; JMB Realty; Public Storage; and Frank Russell Trust.

Venture capital: Brinson and Chancellor.

Limited partnership: Zell/Chilmark.

The master custodian is Continental National Bank; the investment consultant is Ennis, Knupp & Associates.

Key personnel overseeing the investment management of the fund are the Board of Trustees and James B. Waters Jr.

Public School Teachers' Pension and Retirement Fund of Chicago

	($ millions)
Total assets*	3,611
Defined benefit	3,611
Employer DB contributions	143
Benefit payments	159
*as of Aug. 31, 1990	
Internally managed assets	556
Defined benefit asset mix:	
Stocks	30%
Fixed income	50%
Cash equivalents	20%

CHICAGO — As of Aug. 31, 1990, the Public School Teachers' Pension and Retirement Fund of Chicago's defined benefit assets increased 3.1% to $3.611 billion from an estimated $3.502 billion Sept. 30, 1989.

Equity managers: Domestic — ANB Investment; Capital Supervisors.

Fixed-income managers: Domestic — Capital Supervisors.

The master trustee is the Chicago city treasurer. The consultant is Mercer.

The key person overseeing the investment management of the fund is James F. Ward, executive director.

Chrysler Corp.

Total assets	5,096
Defined benefit	4,122
Total defined contribution	974
401(k)	804
Other	171
Employer DB contributions	840
Benefit payments	617
Employer DC contributions	18
Internally managed assets:	
Total DB	1,185
Hedging devices used:	
Stock index futures	
Defined benefit asset mix:	
Stocks	54%
Fixed income	42%
Cash equivalents	1%
Real estate equity	3%
Defined contribution asset mix:	
Company stock	6.8%
Other stock	4.6%
Cash equivalents	34.6%
GICs/BICs	35.9%
Other	18.1%

HIGHLAND PARK, Mich. — As of Sept. 30, Chrysler Corp.'s total employee benefit assets decreased 6.8% to $5.096 billion from $5.467 billion a year earlier. Defined benefit assets decreased 8.4% during the same period, to $4.122 billion from $4.498 billion. Defined contribution assets increased 0.5%, to $974 million from $969 million.

Equity managers: Domestic — Acorn; Ariel; Associated Capital Investors; Atalanta Sosnoff; Avatar; Bankers Trust; Bear Stearns Asset; Sanford C. Bernstein; Chase Investment; Columbus Circle; Daiwa International; Deutsche Bank Capital; Carl Domino; Fidelity Management Trust; GE Investment; Seth Glickenhaus; Greaves Capital; Hancock Capital Growth; Harris Associates; Hotchkis and Wiley; InterMedia Partners; Investment Research; Leavy Investment; Manufacturers National Detroit; Merrill Lynch Asset; Mitchell Hutchins Asset; NCM; Pacific Asset Partners; Palley-Needelman; Perpetuity Asset; Reimer & Koger; Rothschild International; Fayez Sarofim; Shearson Lehman Capital; Smith Barney; Trust Co. of the West; Veronis, Suhler; WestMark Systems; Westwood.

Fixed-income managers: Aetna; Bank of New York; Bankers Trust; Blackstone Short Duration; Metropolitan Realty; Morgan Guaranty Trust; J.P. Morgan Petroleum Fund II; Morgan Stanley Asset; National Bank of Detroit; Smith Barney; Solon Asset; State Street Research; Travelers; Trust Co. of the West.

Real estate managers: JMB; Prudential; RREEF; Shearson Lehman Capital.

The master trustee and global custodian is Bankers Trust.

Key personnel overseeing the investment management of the fund are T.J. Osborn, treasurer; T.P. Capo, assistant treasurer; and R.P. Flynn, manager-pension fund investments.

CIGNA Corp.

	($ millions)
Total assets	1,711
Defined benefit	1,107
Total defined contribution	604
Profit-sharing	97
Thrift or savings	431
Other	76
Employer DB contributions	29
Benefit payments	53
Employer DC contributions	25
Internally managed assets:	
Total DB	1,106
Total DC	604
Defined benefit asset mix:	
Stocks	47.7%
Fixed income	43.7%
Cash equivalents	0.4%
Real estate equity	8.2%
Defined contribution asset mix:	
Company stock	4%
Other stock	11%
Fixed income	84%
Cash equivalents	1%

HARTFORD, Conn. — As of Sept. 30, CIGNA Corp.'s total employee benefit assets declined 3.6% to $1.711 billion from $1.775 billion a year earlier. Defined benefit assets declined 7.3% during the same period, to $1.107 billion from $1.194 billion. Defined contribution assets increased 3.9% to $604 million from $581 million.

All assets are managed by CIGNA affiliates except for $1.5 million in realty assets managed by Coldwell Banker.

The master trustee is CG Trust; the consultant is CIGNA Asset Advisors.

Key personnel overseeing the investment management of the fund are James G. Stewart, executive vice president and chief financial officer; and George R. Trumbull, executive vice president and chief investment officer.

Citibank N.A.

	($ millions)
Total assets	2,006
Defined benefit	1,299
401(k)	707
Employer DB contributions	0
Benefit payments	7
Employer DC contributions	94
Internally managed assets:	
Total DB	152
Total DC	428
Hedging devices used:	
Stock options	
Stock index futures	
Defined benefit asset mix:	
Stocks	74%
Fixed income	17%
Real estate equity	9%
Defined contribution asset mix:	
Company stock	16.1%
Other stock	33.7%
Fixed income	10.8%
Cash equivalents	39.4%

NEW YORK — As of Sept. 30, Citibank N.A.'s total employee benefit assets decreased 2% to $2.006 billion from $2.056 billion a year earlier. Defined benefit assets decreased 4%

Top 200 funds with defined contribution assets managed internally

($ millions)

Fund	Total	Equities	Bonds	Short-term	Real estate	Other
TIAA-CREF	83,100	30,600	42,700	3,600	4,600	1,600
Federal Retirement Thrift	6,700	0	0	6,700	0	0
Procter & Gamble	5,770	4,829	0	140	0	801
General Electric	4,634	891	2,272	253	0	1,218
Sears, Roebuck	4,518	2,678	702	1,138	0	0
Exxon	2,663	0	0	2,663	0	0
Texas Municipal	2,400	0	2,400	0	0	0
Texas County & District	2,297	0	2,283	14	0	0
Prudential Insurance	1,559	227	1,332	0	0	0
Evangelical Luthern	1,239	103	1,032	97	7	0
Pacific Telesis	1,193	1,193	0	0	0	0
Metropolitan Life	992	na	na	na	na	na
Aetna	983	271	712	0	0	0
Grumman	972	265	576	131	0	0
Halliburton	929	0	0	0	0	929
Tenneco	838	153	0	685	0	0
J.C. Penney	805	na	na	na	na	na
NYNEX	792	0	0	0	0	792
Equitable Life	740	106	0	0	3	631
Union Carbide	634	na	na	na	na	na
CIGNA	604	93	507	4	0	0
Bechtel Power	517	97	177	243	0	0
Travelers	511	27	357	0	0	127
Minnesota Mining & Mfg.	507	0	507	0	0	0
Citibank	428	149	0	0	0	279
Georgia-Pacific	379	0	0	0	0	379
USX	370	na	na	na	na	na
Eli Lilly	355	0	355	0	0	0
New Jersey	274	181	28	65	0	0
General Dynamics	243	0	243	0	0	0
New York Life	231	na	na	na	na	na
United Parcel Service	138	78	0	0	35	25
Minnesota State Board	86	0	86	0	0	0
Nat'l Rural Electric Co-op	69	27	0	42	0	0
Consolidated Natural Gas	27	na	na	na	na	na
Atlantic Richfield	11	0	11	0	0	0
Total	**128,508**	**41,968**	**56,280**	**15,775**	**4,645**	**6,781**

Top 200 funds with indexed assets managed internally

($ millions)

		Defined benefit		Defined contribution*
Fund	Total	Indexed equities	Indexed bonds	Indexed equities
TIAA-CREF	21,300	0	0	21,300
California State Teachers	14,519	0	14,519	0
New York State & Local	13,914	13,914	0	0
California Employees	13,800	13,800	0	0
New York State Teachers	13,019	13,019	0	0
Florida State Board	6,640	4,036	2,604	0
Minnesota State Board	4,400	0	4,400	0
General Electric	4,157	3,641	0	516
Du Pont	3,246	3,246	0	0
Colorado Employees	1,888	1,888	0	0
NYNEX	1,555	849	706	0
Maryland State	1,354	844	510	0
Chrysler	1,185	694	491	0
Sears, Roebuck	914	522	0	392
Ameritech	836	716	120	0
Kentucky Retirement	835	835	0	0
Prudential Insurance	833	638	195	0
Exxon	820	820	0	0
State of Michigan	691	691	0	0
Washington State Board	677	0	677	0
Westinghouse Electric	635	396	239	0
GTE	595	595	0	0
UMWA	515	0	515	0
Alabama Retirement	481	481	0	0
Texas Employees	481	481	0	0
San Francisco City/County	454	454	0	0
Pennsylvania School	414	216	198	0
Deere	391	391	0	0
Caterpillar	350	350	0	0
Travelers	321	233	61	27
Virginia Retirement	238	238	0	0
Kentucky Teachers	183	89	94	0
Delta Air Lines	175	175	0	0
CIGNA	171	140	31	0
Louisiana Employees	107	0	107	0
Monsanto	67	0	67	0
Aetna	37	37	0	0
S. California Edison	25	25	0	0
Equitable Life	23	23	0	0
Total	**112,246**	**64,477**	**25,534**	**22,235**

*No defined contribution plan reported having indexed bonds managed internally during the same period, to $1.299 billion from $1.356 billion. Defined contribution assets increased 1%, to $707 million from $700 million.

Equity managers: Domestic - Chancellor.

International - Citicorp Investment.

Fixed-income managers: Chancellor.

Real estate managers: Citicorp Real Estate.

The master custodian is Citibank.

The key person overseeing the investment management of the fund is Ronald Walter, vice president.

Colorado Public Employees Retirement Association

	($ millions)
Total assets	9,195
Defined benefit	9,195
Employer DB contributions	252
Benefit payments	326
Internally managed assets	7,873
Defined benefit asset mix	
Stocks	44%
Fixed income	36.3%
Cash equivalents	4%
Real estate equity	6.3%
Mortgages	3.2%
GICs/BICs	4.9%
Other	1.3%

DENVER — As of Sept. 30, the Colorado Public Employees Retirement Association's total employee benefit assets decreased 0.3% to $9.195 billion from $9.227 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Denver Investment; Janus; United Capital Management.

International — Alliance Capital; Baring International; Brinson Partners; Dunedin Fund; Morgan Grenfell; Nomura Capital; Philippe; Schroder Capital.

Real estate managers: Heitman; La Salle; Prudential.

Other managers: Cattanach; Centennial; Columbine; Colorado Venture Management; John Hancock Fund.

The master custodian and global custodian is Northern Trust; the investment consultant is Mercer.

The key person overseeing the investment management of the fund is Norman Benedict, deputy executive director.

Commonwealth Edison Co.

	($ millions)
Total assets	2,029
Defined benefit	2,029
Employer DB contributions	na
Benefit payments	na
Internally managed assets	1,186
Hedging devices used:	
Stock index futures	
Defined benefit asset mix:	
Stocks	44%
Fixed income	48%
Cash equivalents	8%

CHICAGO — As of Sept. 30, Commonwealth Edison Co.'s total employee benefit assets decreased 6.1% to $2.029 billion from $2.161 billion a year earlier. All assets are defined benefit.

The master custodian is Northern Trust.

Key personnel overseeing the investment management of the fund are Howard R. Carlson, manager of investments; Rickard P. Schwartz, senior portfolio manager; and Michael J. Borrelli, investment research director.

The State of Connecticut Trust Funds

	($ millions)
Total assets	7,902
Defined benefit	7,902
Employer DB contributions	na
Benefit payments	na
Internally managed assets	[illegible]
Defined benefit asset mix:	
Stocks	44.85%
Fixed income	32.1%
Cash equivalents	3%
Real estate equity	16.5%
Mortgages	2.75%
Venture capital	0.8%

HARTFORD, Conn. — As of Sept. 30, the State of Connecticut Trust Funds' total employee benefit assets decreased 1.2% to $7.902 billion from $7.996 billion a year earlier. All the assets are defined benefit.

Equity managers: Domestic — Aetna; Ariel; Bankers Trust; Capital Guardian; Concord Capital; Connecticut National; Franklin; One Lewis; Oppenheimer; Phoenix; Roanoke; and Wright.

International — Boston International; Capital Guardian; Fidelity; Nomura; and Schroder.

Fixed-income managers: Domestic — Bear Stearns; Loomis Sayles; PIMCO; Standish Ayer; and STW.

International — Julius Baer; Brinson Partners; Smith Barney; and State Street.

Real estate managers: Aetna; A[illegible] Partners; CIGNA; Copley; Hancock, Hart Advisors; Heitman; JMB; LaSalle; J.P. Morgan; Phoenix; Public Storage; RREEF; Sentinel; State Street; and TCW.

Venture capital manager: Crossroads.

The master trustee and global custodian is Boston Safe Deposit; the investment consultants are TPF&C (domestic) and Pension Consulting Alliance (international).

Key personnel overseeing the investment management of the fund are Frank McDermott, chief investment officer and assistant treasurer; and John C. Winchester and Silvia Ferrell Jones, senior investment officers.

Consolidated Edison Co. of New York Inc.

	($ millions)
Total assets	3,257
Defined benefit	2,883
Total defined contribution	374
Employer DB contribution	na
Benefit payments	na
Employer DC contributions	na

NEW YORK — As of Sept. 30, Consolidated Edison Co. of New York Inc.'s total employee benefit assets decreased less than 1% to $3.257 billion from $3.28 billion a year earlier. Defined benefit assets decreased 2.7% during the same period, to $2.883 billion from $2.962 billion. Defined contribution assets increased 17.6%, to $374 million from $318 million.

Managers: Aetna, Batterymarch; Boston Co.; Chancellor; Equitable, First Manhattan; JMB; WR Lazard; Mellon; Metropolitan Life; J.P. Morgan; Prudential; Putnam; State Street Research; Travelers; and Wells Fargo.

The master custodian and global custodian is Bankers Trust; the investment consultant is Evaluation Associates.

The key person overseeing the investment management of the fund is John Bell, assistant treasurer.

Consolidated Natural Gas

	($ millions)
Total assets	1,607
Defined benefit	926
Total defined contribution	681
Other	681
Employer DB contributions	0
Benefit payments	33
Employer DC contributions	22
Internally managed assets:	
Total DC	27
Defined benefit asset mix:	
Stocks	47%
Fixed income	1%
Cash equivalents	16%
Annuities	36%
Defined contribution asset mix:	
Company stock	71%
Other stock	3%
Cash equivalents	4%
GICs/BICs	21%
Loans	1%

PITTSBURGH — As of Sept. 30, Consolidated Natural Gas Co.'s total employee benefit assets decreased 2.5% to $1.607 billion from $1.648 billion a year earlier. Defined benefit assets decreased 4.5% during the same period, to $926 million from $970 million. Defined contribution assets, in a thrift plan with a 401(k) feature, increased 0.4%, to $681 million from $678 million.

Equity managers: Domestic — BEA Associates; Lynch & Mayer; Quest; RCM; W.H. Heaves; Rosenberg Institutional.

Fixed-income managers: Domestic — Bankers Trust; Equitable; Prudential.

The master trustee is Bankers Trust; the investment consultant is Lewis Bailey Associates.

Donald W. Borneman, assistant vice president-asset management, oversees investment management of the fund.

Cooper Industries Inc.

	($ millions)
Total assets	1,740
Defined benefit	920

Top 200 funds with defined benefit assets in indexed equities and bonds

($ millions)

Fund	Total	Indexed equities	Indexed bonds
New York City	22,146	0	22,146
California State Teachers	20,005	9,175	10,830
New York State & Local	13,914	13,914	0
California Employees	13,800	13,800	0
New York State Teachers	13,019	13,019	0
AT&T	11,475	7,639	3,836
Florida State Board	8,47[illegible]	5,868	2,604
Minnesota State Board	7,623	2,188	5,435
NYNEX	4,638	3,372	1,266
Pennsylvania School	3,748	1,239	2,509
General Electric	3,641	3,641	0
Teamsters, Central States	3,401	959	2,442
Ford Motor	3,300	3,000	300
Du Pont	3,246	3,246	0
Washington State Board	3,116	2,439	677
Maryland State	2,995	2,485	510
Virginia Retirement	2,869	2,869	0
Pennsylvania Employes	2,625	2,008	617
Southwestern Bell	2,382	2,382	0
Teamsters, Western	2,122	1,372	750
Mississippi Employees	2,077	704	1,373
Colorado Employees	1,888	1,888	0
Exxon	1,691	1,260	431
Illinois Teachers	1,544	1,124	420
Arizona State	1,529	855	674
Illinois State Universities	1,461	1,135	326
North Carolina	1,424	1,424	0
Connecticut Trust Funds	1,421	1,287	134
Operating Engineers	1,276	425	851
Kentucky Retirement	1,275	835	440
Ameritech	1,238	716	522
Pacific Telesis	1,229	1,229	0
Chrysler	1,185	694	491
Iowa Employees	1,105	653	[illegible]52
Hospital/Health Care	1,094	933	161
Rhode Island	1,050	1,01[illegible]	38
UMWA	1,015	500	515
Illinois Municipal	966	610	356
Indiana Employees	900	0	900
Tennessee Valley Authority	876	876	0
Commonwealth Edison	862	862	0
Ohio School Employees	862	862	0
Prudential Insurance	836	638	198
Unisys	832	832	0
Chicago School	827	827	0
Westinghouse Electric	813	574	239
Los Angeles Fire & Police	795	795	0
United Technologies	780	780	0
Utah State	750	750	0
Chicago Police	728	310	418
State of Michigan	691	691	0
Tenneco	679	494	185
GTE	677	677	0
Los Angeles City	654	254	400
Georgia Teachers	648	648	0
World Bank	632	632	0
Maine State	601	417	184
Philip Morris	600	600	0
Raytheon	586	588	0
Nevada Employees	577	577	0
Nat'l Electrical Contractors	530	530	0
Sears, Roebuck	522	522	0
Pacific Gas & Electic	501	501	0
Oklahoma Teachers	500	0	500
Idaho Employees	493	261	232
Alabama Retirement	481	481	0
Texas Employees	481	481	0
New Mexico Employees	480	480	0
Delaware State	473	235	238
San Francisco City/County	454	454	0
Kentucky Teachers	442	89	353
Amoco	425	425	0
I.A.M. National Pension	419	202	217
S. New England Telephone	407	278	129
Deere	405	405	0
Allied-Signal	399	399	0
Honeywell	398	398	0
Anheuser-Busch	366	297	69
Caterpillar	350	350	0
Ohio Police & Firemen	317	317	0
Travelers	294	233	61
Citibank	291	174	117
ALCOA	290	290	0
Presbyterian Church	2[illegible]	264	0
Alaska State	241	241	0
Chevron	236	171	65
United Methodist Church	228	200	28
Hawaii Employees	223	223	0
Cooper Industries	205	205	0
Kansas Employees	200	200	0
Minnesota Mining & Mfg.	193	144	49
United Airlines	190	190	0
United Parcel Service	185	185	0
Bakery & Confectionery	176	102	74
Delta Air Lines	175	175	0
CIGNA	171	140	31
FPL Group	170	0	170
S. California UFCW	168	168	0
BP America	163	163	0
Mobil Oil	152	152	0
Monsanto	151	84	67
K mart	149	149	0
General Dynamics	143	143	0
Armco	134	134	0
New York Life	133	89	44
Nat'l Rural Electric Co-op	113	0	113
Louisiana Employees	107	0	107
Phillips Petrolem	105	100	5
Procter & Gamble	75	39	36
S. California Edison	70	70	0
Motorola	54	54	0
PPG Industries	48	48	0
Inland Steel	43	43	0
ITT	39	39	0
Aetna	37	37	0
Hercules	25	25	0
Equitable Life	23	23	0
Southern Baptist	4	4	0
Total	**223,724**	**137,388**	**86,336**

Total defined contribution	820
Thrift or savings	246
401(k)	416
Other	158
Employer DB contributions	na
Benefit payments	na
Employer DC contributions	na

Defined benefit asset mix:	
Stocks	22%
Cash equivalents	78%
Defined contribution asset mix:	
Company stock	31%
Other stock	12%
Cash equivalents	6%
GICs/BICs	51%

HOUSTON — As of Sept. 30, Cooper Industries Inc.'s total employee benefit assets increased 2.4% to $1.74 billion from $1.7 billion a year earlier. Defined benefit assets decreased 3.2% during the same period, to $920 million from $950 million. Defined contribution assets increased 9.3%, to $820 million from $750 million.

Equity managers: Domestic — Mellon Capital.

Other managers: Fischer, Francis, Trees & Watts; J.P. Morgan; T. Rowe Price.

The master trustee is Citibank.

The key person overseeing the investment management of the fund is Dwight S. Kadar, director.

Top 200 funds with assets in private placements

Defined benefit

Fund	($ millions)
Wisconsin State Board	2,873
AT&T	1,519
General Electric	1,400
Alabama Retirement	1,066
State of Michigan	560
Colorado Employees	314
New York State Teachers	303
Kansas Employees	302
Washington State Board	181
Prudential Insurance	172
GTE	139
Honeywell	125
Minnesota Mining & Mfg.	125
USX	120
Iowa Employees	115
Ford Motor	100
Missouri School	88
North Carolina	80
Pacific Gas & Electric	77
Los Angeles County	73
California State Teachers	69
Monsanto	61
Owens-Illinois	58
Arkansas Teachers	55
San Francisco City/County	44
Kentucky Retirement	42
Maine State	41
Union Carbide	41
American Airlines	40
Textron	40
Travelers Insurance	40
Atlantic Richfield	37
Chicago School	28
Anheuser-Busch	26
S. New England Telephone	25
Xerox	25
General Dynamics	24
Illinois State Board	20
Los Angeles Water & Power	17
CIGNA	16
Du Pont	15
Maryland State	11
Delaware State	8
Armco	5
New Mexico Employees	5
Equitable Life	4
Commonwealth Edison	3
Pennsylvania Employes	3
Virginia Retirement	3
World Bank	1
Total	**10,539**

Defined contribution

Fund	($ millions)
TIAA-CREF	11,200
Xerox	6
Total	**11,206**

D

Deere & Co.

	($ millions)
Total assets	2,450
Defined benefit	2,144
Total defined contribution*	306
Profit-sharing	5
401(k)	301
Employer DB contributions	90
Benefit payments	185
Employer DC contributions	17

*as of Aug. 31, 1990

Internally managed assets:	
Total DB	1,845
Defined benefit asset mix:	
Stocks	72%
Fixed income	21.6%
Cash equivalents	1.6%
Real estate equity	3.4%
Other	1.4%
Defined contribution asset mix:	
Company stock	8%
Other stock	18%
GICs/BICs	74%

MOLINE, Ill. — As of Sept. 30, Deere & Co.'s total employee benefit assets decreased 9.9% to $2.45 billion from $2.72 billion a year earlier. Defined benefit assets decreased 14.2% during the same period, to $2.144 billion from $2.5 billion. Defined contribution assets increased 39%, to $306 million from $220 million.

Equity managers: Domestic — Batterymarch; Morgan Guaranty; and Roll & Ross.

International — Acadian; Dimensional; and Roll & Ross.

Real estate managers: AEW; Copley; LaSalle; Morgan Guaranty; and TCW.

The master trustee and global custodian is Boston Safe.

The key person overseeing the investment management of the fund is Dennis R. Schwartz, managing director-pension fund and investments.

State of Delaware

	($ millions)
Total assets*	1,733
Defined benefit	1,733
Employer DB contributions	73
Benefit payments	70

*as of June 30, 1990

Hedging devices used:
Stock index futures
Fixed-income futures

Defined benefit asset mix:	
Stocks	43.4%
Fixed income	37.6%
Cash equivalents	13.9%
Real estate equity	0.8%
Venture capital	4.3%

DOVER, Del. — As of June 30, the State of Delaware's total employee benefit assets increased 10.2% to $1.733 billion from $1.572 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Alliance; Cadence; Equity Link Investors; Froley Revy; Lincoln Capital; Mellon Capital; T. Rowe Price; TCW; Trinity; Wells Fargo; and Wilmington Capital.

International — Batterymarch and HD International.

Fixed-income managers: Domestic — Mellon Capital; Weiss, Peck & Greer; and Wells Fargo.

International — NM Rothschild.

Real estate managers: Aetna Life; Citibank; John Hancock; and Retail Property Trust.

Other managers — Accel Partners; Advanced Technology Ventures; Brentwood; Cherry Tree Ventures; Dougery Jones & Wilder; Fidelity Daily Income; Morgan Holland; Norton & Associates; Onset Enterprises; T. Rowe Price; Scudder, Stevens & Clark; Spectra Enterprises; Julian Cole Stein; and Summit Ventures.

The master custodian is Mercantile Safe Deposit; the investment consultant is Ashford Capital Management.

Key personnel overseeing the investment management of the fund are Dale Stratton, chairman-investment committee; Theodore Ashford, investment committee executive secretary; and C. Raeford Minix, chairman-board of pension trustees.

Delta Air lines Inc.

	($ millions)
Total assets	3,977
Defined benefit	3,175
Total defined contribution	802
Thrift or savings	750
401(k)	27
ESOP	25
Employer DB contributions	100
Benefit payments	85
Employer DC contributions	35

Internally managed assets:	
Total DB	450

Hedging devices used:
Stock options
Stock index futures

Defined benefit asset mix:	
Stocks	59%
Fixed income	23%
Cash equivalents	10%
Real estate equity	3%
Other	5%
Defined contribution asset mix:	
Company stock	12%
Other stock	12%
Fixed income	12%
GICs/BICs	64%

ATLANTA — As of Sept. 30, Delta Air Line Inc.'s total employee benefit assets decreased 1.8% to $3.977 billion from $4.05 billion a year earlier. Defined benefit assets decreased 6.6% during the same period, to $3.175 billion from $3.4 billion. Defined contribution assets increased 23.4%, to $802 million from $650 million.

The master trustee and global custodian is Harris Trust.

The key person overseeing the investment management of the fund is James B. Taylor, assistant vice president-investment management.

City of Detroit Retirement Systems

	($ millions)
Total assets*	3,925
Defined benefit	3,423
Total defined contribution	502
Employer DB contributions	na
Benefit payments	na
Employer DC contributions	na

*P&I estimate

DETROIT — As of June 30, *Pensions & Investments* estimates the City of Detroit Retirement Systems total employee benefit assets were $3.925 billion. That estimate is based on the $3.587 billion the system reported a year earlier and represents a 9.4% increase. Defined benefit assets increased 10.8% during the same period, to an estimated $3.423 billion from $3.09 billion. Defined contribution assets increased 1% to an estimated $502 million, from $497 million.

The retirement system is composed of the General Retirement System and the Police & Fire Retirement System.

The master custodian for the general system is Comerica; the police and fire system uses Manufacturers Bank. The real estate investment consultants are Meyer Real Estate Advisors and Townsend.

Key personnel overseeing the investment management of the fund are Thomas Zdrodowski, executive secretary; Nicholas Degel, assistant administrative supervisor; and Walter Stampor, investment agent.

Digital Equipment Corp.

	($ millions)
Total assets	1,652
Defined benefit	1,345
401(k)	307
Employer DB contributions	0
Benefit payments	13
Employer DC contributions	0
Internally managed assets:	
Total DB	450

MAYNARD, Mass. — As of Sept. 30, Digital Equipment Corp.'s total employee benefit assets decreased 5.2% to $1.652 billion from $1.742 billion a year earlier. Defined benefit assets decreased 8.9% during the same period, to $1.345 billion from $1.477 billion. Defined contribution assets increased 15.8%, to $307 million from $265 million.

Equity managers: Domestic — Alliance; Bankers Trust; Capital Guardian; First Quadrant; and Wells Fargo Nikko.

International — Boston International and Capital Guardian.

Fixed-income managers: — Jennison and PIMCO.

Real estate managers: AEW.

The master trustee is Boston Safe Deposit.

The key person overseeing the investment management of the fund is A. Raymond Schmalz, group treasury manager.

Dow Chemical Co.

	($ millions)
Total assets	4,000
Defined benefit	2,500
Total defined contribution	1,500

MIDLAND, Mich. — As of Sept. 30, Dow Chemical Co.'s total employee benefit assets totaled $4 billion. Defined benefit assets totaled $2.5 billion, a decrease of 7.4% from the $2.7 billion reported a year earlier, and defined contribution assets totaled $1.5 billion.

E.I. du Pont de Nemours

	($ millions)
Total assets	17,728
Defined benefit	11,448
Total defined contribution	6,280
Thrift or savings	5,766
401(k)	192
Other	322
DB benefit payments	679
Employer DC contributions	na

Internally managed assets:	
Total DB	11,267
Defined benefit asset mix:	
Stocks	54%
Fixed income	33%
Cash equivalents	12%
Real estate equity	1%
Defined contribution asset mix:	
Company stock	7%
Other stock	6%
GICs/BICs	86%
Other	1%

WILMINGTON, Del. — As of Sept. 30, E.I. du Pont de Nemours & Co.'s total employee benefit assets decreased 5% to $17.728 billion from $18.681 billion a year earlier. Defined benefit assets decreased 11.6% during the same period, to $11.448 billion from $12.945 billion. Defined contribution assets increased 9.5%, to $6.28 billion from $5.736 billion.

Real estate managers: Trammel Crow; EQK; Hancock; Lincoln Property; J.P. Morgan; and NCNB Texas.

Venture capital managers: APA Excelsior; Capital Management Ser-

Top 200 defined benefit average asset mix

Corporate

	1990	1989
Stocks	48.7%	50.2%
Fixed-income*	34.2	32.6
Cash	7.5	7.3
Real estate equity	5.3	4.5
Mortgages	0.3	0.3
GIC/BIC	1.1	1.2
Annuities	0.6	1.3
Other	2.3	2.6

Public

Stocks	36.7%	37.2%
Fixed-income*	46.8	44.9
Cash	7.0	9.0
Real estate equity	4.6	3.8
Mortgages	2.8	2.4
GIC/BIC	0.2	0.2
Annuities	0.0	0.0
Other	1.9	2.5

Union

Stocks	37.3%	41.9%
Fixed-income*	40.0	44.4
Cash	8.9	5.7
Real estate equity	3.8	3.3
Mortgages	3.0	2.1
GIC/BIC	4.5	2.1
Annuities	1.5	0.0
Other	1.0	0.5

*Includes mortgage-backed securities

Top 200 defined contribution average asset mix

Corporate

	1990	1989
Company stock	27.1%	28.7%
Other stock	14.8	17.1
Fixed-income	9.5	10.0
Cash	7.2	5.7
GIC/BIC	39.6	35.7
Annuities	0.0	0.0
Other	1.8	2.8

Public

Stocks	15.6%	25.0%
Fixed-income	73.1	63.0
Cash	9.3	5.0
GIC/BIC	2.0	2.9
Annuities	0.0	0.0
Other	0.0	4.1

Union

Stocks	14.7%	15.3%
Fixed-income	15.3	19.3
Cash	48.6	53.4
GIC/BIC	11.7	7.3
Annuities	0.0	0.0
Other	9.7	4.7

vices; Crossroads Capital; Golder, Thoma & Cressey; Hambrecht & Quist; Horsley Keogh; Pathfinder; T. Rowe Price; Robertson Coleman & Stephens; and Warburg, Pincus.

Corporate finance: Citicorp Mezzanine Investment Fund; Water Street Corporate Recovery Fund I; and Foothill Partners.

The master custodian is Wilmington Trust; the global custodian is Chase Manhattan.

The key person overseeing the investment management of the fund is Edward J. Bassett, vice president-pension trust fund.

E

Eastern Air Lines Inc.

	($ millions)
Total assets*	2,150
Defined benefit	1,400
Total defined contribution	750
Employer DB contributions	105
Benefit payments	147
Employer DC contributions	na
**P&I estimate*	

Defined benefit asset mix:	
Stocks	35%
Fixed income	40%
Cash equivalents	15%
Real estate equity	10%

MIAMI — As of Sept. 30, *Pensions & Investments* estimates Eastern Air Line Inc.'s total employee benefit assets were $2.15 billion, a 10.8% decrease from the $2.41 billion the company reported a year earlier. Defined benefit assets decreased 6.7% during the same period, to $1.4 billion from $1.5 billion. Defined contribution assets were estimated at $750 million, a 17.6% decrease from the $910 million the company reported the previous year.

The defined benefit plans were terminated Oct. 5 by the Pension Benefit Guaranty Corp. and assets were transferred to the PBGC/Eastern Airlines Settlement Trust. The Eastern pilots' variable plan, a defined contribution, still exists.

Defined benefit equity managers: Domestic — Delafield; Delaware; Forstmann-Leff; INVESCO; and Pacific Financial.

Global — Templeton.

Defined benefit fixed-income managers: Domestic — Associated Capital; Caywood-Christian; Eaton Vance; Northern Trust; and Prudential.

Defined benefit real estate managers: Equitable and Prudential.

Boston Safe Deposit is the master trustee and global custodian.

Key personnel overseeing the investment management of the PBGC/Eastern trust is Charles H. Evans, senior investment adviser in Washington. Overseeing the pilots' defined contribution plan is Charles G. Dyer in Boston.

Eastman Kodak Co.

	($ millions)
Total assets*	9,000
Defined benefit	6,500
401(k)	2,500
Employer DB contributions	4
Benefit payments	332
Employer DC contributions	146
**P&I estimate*	

Defined benefit asset mix:	
Stocks	70%
Cash equivalents	7%
Real estate equity	9%
Annuities	7%
Other	7%
Defined contribution asset mix:	
Company stock	11%
Other stock	6%
GICs/BICs	83%

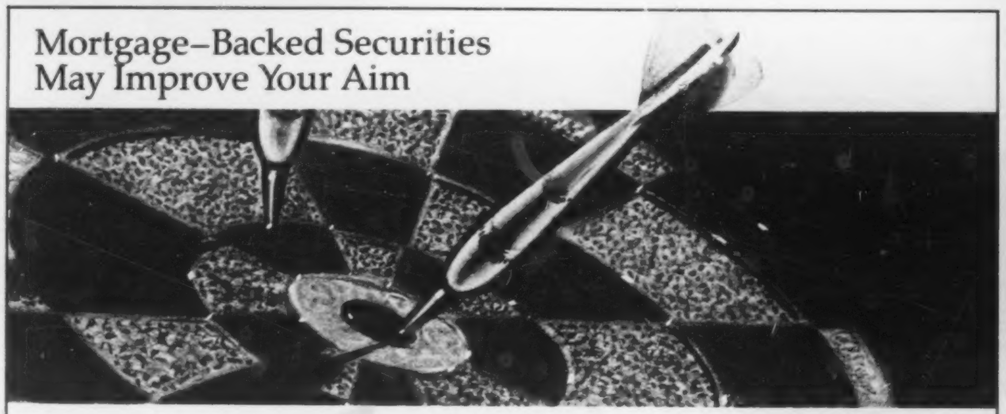
ROCHESTER, N.Y. — *Pensions & Investments* estimates Eastman Kodak Co.'s total assets were $9 billion as of Sept. 30. That estimate is based on total employee benefit assets of $9.251 reported by the company as of Dec. 31, 1989 and represents a 5.3% decrease from the estimated $9.5 billion a year earlier. Defined benefit assets declined almost 11% to an estimated $6.5 billion from the previous year's estimate of $7.3 billion. Defined contribution assets increased 13.6% to an estimated $2.5 billion from an estimated $2.2 billion in 1989.

Equity managers: Domestic — Ardsley; Baker Nye; Sanford Bernstein; Boston Co.; EAI; Fidelity; First Pacific; Hutson; Lieber; Metropolitan Life; Neuberger & Berman; Newell; Nicholas-Applegate; Oppenheimer; PRIMECAP; Rosenberg Institutional; TCW; Value Line; Wall Street Associates; Wellington; and WRM.

Global — RCB and Templeton.

International — Acadian and Emerging Markets.

Real estate managers: Aetna; AEW; Boston Co.; Cabot, Cabot & Forbes; Coldwell Banker; Copley; Equitable; GE; Goldman Sachs; JMB; Mutual of New York; National Property; PCA/Sammis; PCA/Tishman; Phoenix



Mortgage–Backed Securities
May Improve Your Aim

ATLANTIC PORTFOLIO ANALYTICS & MANAGEMENT INC.
THE MORTGAGE–BACKED SECURITIES MONEY MANAGER
- OVER $1 BILLION UNDER MANAGEMENT
- UNIQUE ANALYTICAL AND OPERATIONS COMMITMENT

Contact N.R. Whitcraft, (407) 843-7110 • 201 East Pine St., Suite 600 • Orlando, FL 32801

APAM
Established 1984

4 1K

What good is a great retirement plan if it's mismanaged?

No amount of return is worth the hassle of a 401(k) with lousy recordkeeping. After all, the bulk of your funds are in GIC investment options to begin with.

That's why at IDS Trust, the first thing we promise is recordkeeping that's timely, accurate, and flexible to your needs. You expect it, and we guarantee it.

We also offer Total Daily Processing. That means Total—even on GICs. And when it comes to GICs, we have the oldest, most successful pooled GIC fund in the business.

If you're tired of people dropping the ball on your 401(k), talk with Ward Armstrong at IDS Trust: **1-800-437-0600.**

IDS Trust is a division of IDS Bank & Trust.

c 1989 IDS

IDS
An American Express company

Mutual; PMRA; Property Capital; PSI; RREEF; Schroder; and TCW.

GIC and annuity managers: Continental Assurance; Equitable; First National of Boston; John Hancock; Metropolitan Life; Mitsubishi Bank; New England; Provident National; Prudential; and TCW.

Cash manager: Discount Corp. of New York.

LBO manager: Forstmann Little.

International LBO managers: Advent and MMP Patricof.

Foreign exchange manager: FX Concepts.

Venture capital manager: Horsley Keogh.

Capital growth manager: John Hancock.

Managed futures manager: Mount Lucas.

Oil and gas managers: Chase and J.P. Morgan.

Other managers: BCI Growth; Equitable; First Reserve; Lazard Freres; Merrill Lynch; Metropolitan Life; Recovery Equity; and TCW.

Boston Safe Deposit is the master trustee and global custodian; the investment consultant is Rogers, Casey.

Key personnel overseeing the investment management of the fund are Russell L. Olson, director of pension investments; and A. Duff Lewis Jr., pension investment coordinator.

PROXY VOTER version 3.0

THE COMPLETE PROXY MANAGEMENT SYSTEM
used by more institutional investors

featuring:
IRRC's expert proxy research and analysis
Electronic transfer of proposal information
Report writing, split voting and multi-user capabilities

call for your
free demo disk

IRRC Investor Responsibility Research Center Inc.

David Popper/David Hauck
1755 Massachusetts Ave., N.W.
Washington, DC 20036
202/234-7500

This announcement appears as a matter of record only.

Kidder, Peabody & Co.
Incorporated

is pleased to announce that the name of its
wholly-owned investment advisory firm

Webster Management Corporation

has been changed to

Kidder Peabody Asset Management, Inc.

Kidder Peabody
ASSET MANAGEMENT

20 Exchange Place
New York, NY 10005
(212) 510-8910

© KIDDER PEABODY & CO. INCORPORATED 1990 FOUNDED 1865 MEMBER SIPC OVER 50 OFFICES WORLDWIDE

Eaton Corp.

	($ millions)
Total assets*	1,715
Employer DB contributions	na
Benefit payments	na
Employer DC contributions	na
P&I estimate	

CLEVELAND — As of Sept. 30, Eaton Corp.'s employee benefit assets totaled $1.715 billion, according to a *Pensions & Investment* estimate. The estimate is based on the $1.928 billion the company reported December 1989 as reported in the Money Market Directory.

The Church Pension Fund (Episcopal)

	($ millions)
Total assets	1,850
Defined benefit	1,850
Employer DB contributions	52
Benefit payments	53
Hedging devices used:	
Stock options	
Bond options	
Stock index futures	
Fixed-income futures	
Short selling	
Defined benefit asset mix:	
Stocks	52.3%
Fixed income	40%
Cash equivalents	5%
Mortgages	2.7%

NEW YORK — As of Sept. 30, total employee benefit assets of The Church Pension Fund (Episcopal) increased 0.7% to $1.85 billion from $1.837 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Alliance and J.P. Morgan.

International — J.P. Morgan

Fixed-income managers: Domestic — Alliance and J.P. Morgan.

The master custodian, global custodian and investment consultant is Morgan Guaranty.

Key personnel overseeing the investment management of the fund are Robert A. Robinson, president; A.F. Blanchard, president-elect; and M. Fearey, executive vice president.

The Equitable Life Assurance Society of the United States

	($ millions)
Total assets	1,635
Defined benefit	895
Thrift or savings	740
Employer DB contributions	12
Benefit payments	21
Employer DC contributions	18
Internally managed assets:	
Total DB	895
Total DC	740
Hedging devices used:	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	24.7%
Fixed income	64.4%
Cash equivalents	1.4%
Real estate equity	9.5%
Defined contribution asset mix:	
Other stock	14.3%
GICs/BICs	82.1%
Other	3.6%

NEW YORK — As of Sept. 30, The Equitable Life Assurance Society of the United States' total employee benefit assets declined less than 1% to $1.635 billion from $1.639 billion a year earlier. Defined benefit assets declined 4.8% to $895 million from $940 million during the same period. Defined contribution assets increased 5.9% to $740 million from $699 million.

All assets are managed by Equitable subsidiaries.

The master trustees and global custodians are Chase Manhattan Bank and Northern Trust.

Key personnel overseeing the investment management of the fund are Peter LiPuma, vice president; Raymond Colotti, executive vice president and trustee; Thomas Mann, senior vice president and trustee; and Thomas Kirwan, executive vice president and chief financial officer.

Financing and investing opportunities in post-1992 Europe will be examined Oct. 28.

Evangelical Lutheran Church in America Board of Pensions

	($ millions)
Total assets	1,833
Defined contribution	1,833
Employer DC contribution	48
Internally managed assets	1,239
Hedging devices used:	
Stock index futures	
Defined contribution asset mix:	
Stock	36.7%
Fixed income	57.6%
Cash equivalents	5.3%
Real estate	0.4%

MINNEAPOLIS — As of Sept. 30, the Evangelical Lutheran Church in America Board of Pensions' total employee benefit assets increased 2.9% to $1.833 billion from $1.782 billion a year earlier. All assets are in a 403(b) plan.

Equity managers: Domestic — Alliance; J.P. Morgan; RCM Capital; Rosenberg Institutional; Wells Fargo Nikko.

International — Acadian.

Fixed-income managers: Domestic — Baring America and London Investment.

The master trustee and global custodian is Boston Safe Deposit; the investment consultant is Wilshire.

Key personnel overseeing the investment management of the fund are John G. Kapanke, president; Michael L. Troutman, senior manager-investment programs; Paul "Tim" Kaspar, senior equity portfolio manager; and Christopher C. Berberet, senior bond portfolio manager.

Exxon Corp.

	($ millions)
Total assets	7,838
Defined benefit	3,226
Total defined contribution	4,612
Thrift or savings	3,461
401(k)	599
ESOP	552
Employer DB contributions	0
Benefit payments	330
Employer DC contributions	98
Internally managed assets:	
Total DB	829
Total DC	2,663
Hedging devices used:	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	52%
Fixed income	21%
Cash equivalents	7%
Real estate equity	11%
Other	9%
Defined contribution asset mix:	
Company stock	40%
Other stock	3%

Top 200 funds with assets in LBOs

Fund	($ millions)
Washington State Board	1,123
New York State & Local	822
Oregon Public Employes	773
TIAA-CREF*	769
Wisconsin State Board	540
Iowa Public Employees	442
State of Michigan	389
AT&T	340
United Technologies	185
GTE	181
Illinois State Board	115
Allied-Signal	111
Utah State	90
Minnesota Mining & Mfg.	78
Delta Air Lines	75
Colorado Employees	69
California State Teachers	57
Los Angeles County	57
World Bank	56
Textron	50
ITT	45
Du Pont	31
Phillips Petroleum	30
ALCOA	25
Pennsylvania Employes	25
Grumman	9
Virginia Retirement	4
Total	**6,481**

*TIAA-CREF's figure reflects defined contribution assets. All others are defined benefit.

Cash equivalents	57%

IRVING, Texas — As of Sept. 30, Exxon Corp.'s total employee benefit assets decreased 2.8% to $7.838 billion from $8.066 billion a year earlier. Defined benefit assets decreased 15.4% during the same period, to $3.226 billion from $3.814 billion. Defined contribution assets increased 8.5% to $4.612 billion from $4.252 billion.

Equity managers: Domestic — Sanford Bernstein; Geometry Asset; and Wells Fargo Nikko.

International — State Street Bank and Wells Fargo Nikko.

Fixed-income managers: Domestic — Chase Investors; J.P. Morgan; Smith Barney; and Wells Fargo Nikko.

International — Wells Fargo Nikko.

Real estate managers: Aetna; Corporate Property Investors; Equitable; NCNB Texas; and Prudential.

Royalty managers: First City Texas and Premier Bancorp.

Insured reserves managers: Equitable; John Hancock; Prudential; and Travelers.

Venture capital manager: Horsley Keogh.

The master trustee is Bank of New York; the global custodian is State Street Bank.

Key personnel overseeing the investment management of the fund are W. Allen Harrison, assistant treasurer; James E. Bayne, manager-benefits finance and investment; and Daniel L. Dollo, senior financial coordinator.

F

Federal Retirement Thrift Investment Board

	($ millions)
Total assets	6,890
Thrift or savings	6,890
Employer DC contributions	596
Internally managed assets	6,700
Defined contribution asset mix:	
Other stock	2.1%
Fixed income	0.6%
Cash equivalents	97.3%

WASHINGTON — As of Sept. 30, the Federal Retirement Thrift Investment Board's total employee benefit assets increased 59.5% to $6.89 billion from $4.319 billion a year earlier. All of the assets are in a defined contribution plan.

Equity manager: Domestic — Wells Fargo Nikko.

Fixed-income manager: Domestic — Wells Fargo Nikko

The master custodians are the U.S. Treasury Department and Wells Fargo Institutional Trust.

Key personnel overseeing the investment management of the fund are Peter B. Mackey, director-investments; Alison L. Doone, deputy director-investments; and Monica L. Spaulding, financial analyst.

Florida State Board of Administration

	($ millions)
Total assets	19,268
Defined benefit	19,268
Employer DB contributions	1,838
Benefit payments	730
Internally managed assets	11,778
Hedging devices used:	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	46%
Fixed income	32%
Cash equivalents	3%
Real estate equity	5%
Mortgages	14%

TALLAHASSEE, Fla. — As of Sept. 30, the Florida State Board of Administration's total employee benefit assets increased 3% to $19.268 billion from $18.7 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Alliance; Ariel; Barnett Banks; Barrow, Hanley, Mewhinney & Strauss; Delaware; Denver; Eagle; IDS Growth; Lazard Freres Asset; Corporate Advisors; Prudential Asset; Sun Bank Capital; Westwood; Wilshire; and Wells Fargo Nikko.

International — Capital Guardian; Kleinwort Benson; Morgan Stanley; T. Rowe Price; Scudder; and Templeton.

Fixed-income managers: — Alliance; Atlantic Portfolio Analytics; Glenmede; and TCW.

Real estate managers: Aetna; Brinson Partners; CFCL Acquisition; Equitable; Goldman, Sachs; John Hancock Properties; JMB; LaSalle; Lehndorff & Babson; and Prudential Asset.

The master trustee and the global custodian is Citibank; the investment consultant is SEI Capital Resources.

Key personnel overseeing the investment management of the fund are William O. Bell III, chief of management policy; Lan Janecek, chief investment officer-equities; Carmen Hiers, chief investment officer-fixed income; and Doug Bennett, chief investment officer-real estate.

Ford Motor Co.

	($ millions)
Total assets	20,800
Defined benefit	16,900
Defined contribution	3,900
Employer DB contributions	200
Benefit payments	700
Employer DC contributions	120
Internally managed assets:	
Total DB	1,300
Hedging devices used:	
Stock index futures	
Defined benefit asset mix:	
Stocks	55%
Fixed income	40%
Real estate equity	5%
Defined contribution asset mix:	
Company stock	43%
Other stock	12%
Cash equivalents	13%
GICs/BICs	29%
Loans	3%

DEARBORN, Mich. — As of Sept. 30, Ford Motor Co.'s total employee benefit assets decreased 8.8% to $20.8 billion from $22.8 billion a year earlier. Defined benefit assets decreased 6.6% during the same period, to $16.9 billion from $18.1 billion. Defined contribution assets decreased 17%, to $3.9 billion from $4.7 billion.

Equity managers: Global — Alliance Capital; Ariel; Sanford Bernstein; Brinson Partners; Capital Guardian; Concord Capital; Dreman Value; Fidelity Management; Manufacturers Detroit; Mitchell Hutchins; J.P. Morgan; PRIMECAP; Sarofim Trust; Scudder, Stevens & Clark; and State Street Research.

Fixed-income managers: Global — Capital Guardian; Dewey Square; J.P. Morgan; T. Rowe Price; Sarofim Trust; State Street Research; and Wells Fargo.

Real estate managers: Aetna; Cabot, Cabot & Forbes; CIGNA; Equitable; GE; JMB; LaSalle; J.P. Morgan; NCNB; J.W. O'Connor; Prudential; Public Storage; Sentinel; and TCW.

The master trustee is Manufacturers National Bank of Detroit.

Key personnel overseeing the investment management of the fund are M.E. Maertens, manager-trust investments, and P.E. Sharp, assistant treasurer.

Top 200 funds with investments in oil & gas*

Fund	($ millions)
AT&T	197
Washington State Board	120
GTE	107
Minnesota State Board	89
General Electric	64
Honeywell	63
ITT	45
Textron	40
Southwestern Bell	38
Delta Air Lines	30
S. New England Telephone	30
Exxon	27
Ford Motor	25
Caterpillar	16
Allied-Signal	14
Xerox (DB)	14
USX	10
ALCOA	6
Hospital/Health Care	6
Owens-Illinois	2
Maine State	1
Xerox (DC)	1
Total	**945**

*All are defined benefit funds unless otherwise noted.

FPL Group Inc.

	($ millions)
Total assets	1,823
Defined benefit	1,248
Total defined contribution	575
401(k)	482
ESOP	93
Employer DB contributions	na
Benefit payments	na
Employer DC contributions	na
Hedging devices used:	
Bond options	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	63%
Fixed income	25%
Real estate equity	6%
TAA	6%
Defined contribution asset mix:	
Company stock	45%
Other stock	12%
GICs/BICs	40%
Other	3%

NORTH PALM BEACH, Fla. — As of Sept. 30, FPL Group Inc.'s total employee benefit assets decreased 7.1% to $1.823 billion from $1.963 billion a year earlier. Defined benefit assets decreased 8.8% during the same period, to $1.248 billion from $1.369 billion. Defined contribution assets decreased 3.2%, to $575 million from $594 million.

Equity managers: Domestic — Capital Technology; General American; Fayez Sarofim; Donald Smith; and Quest Advisory.

International — Hill Samuel; Oechsle; and State Street International.

Fixed-income managers: Domestic — Wells Fargo and Western Asset.

Real estate managers: AMB; JMB; and RREEF.

Tactical asset allocation: — Wells Fargo.

The master trustee and global custodian is First Wachovia; the investment consultant is Rogers, Casey.

The key person overseeing the investment management of the fund is Robert L. McGrath, manager-trust fund investments.

Top 200 funds with defined contribution assets in indexed equities and bonds
($ millions)

Fund	Total	Indexed equities	Indexed bonds
TIAA-CREF	21,300	21,300	0
General Electric	516	516	0
Ford Motor	500	500	0
Philip Morris	495	495	0
Sears, Roebuck	392	392	0
AT&T	347	347	0
NYNEX	342	193	149
Indiana Employees	320	0	320
GTE	259	229	30
Martin Marietta	259	259	0
Evangelical Luthern	222	222	0
Federal Retirement Thrift	190	146	44
United Methodist Church	187	164	23
Pacific Telesis	182	120	62
Trans World Airlines	170	170	0
TRW	163	163	0
Ameritech	160	160	0
Bechtel Power	154	154	0
Unisys	150	150	0
United Airlines	150	150	0
Southwestern Bell	146	105	41
Honeywell	144	144	0
Minnesota Mining & Mfg.	131	131	0
Minnesota State Board	131	131	0
Exxon	127	127	0
United Parcel Service	119	119	0
Motorola	109	109	0
Cooper Industries	96	96	0
ITT	89	89	0
S. California Edison	70	50	20
American Electric Power	64	64	0
American Stores	62	62	0
FPL Group	59	59	0
Deere	56	56	0
GenCorp	51	51	0
General Dynamics	50	50	0
J.C. Penney	48	48	0
ALCOA	41	41	0
Allied-Signal	40	40	0
Hercules	27	27	0
Travelers	27	27	0
NCR	25	10	15
USX	20	20	0
Union Carbide	16	16	0
Anheuser-Busch	14	14	0
S. New England Telephone	14	14	0
Southern Baptist	4	4	0
Procter & Gamble	2	2	0
UMWA	2	2	0
Total	**28,342**	**27,558**	**784**

G

GenCorp Inc.

	($ millions)
Total assets	1,583
Defined benefit	1,311
Total defined contribution	272
Thrift or savings	101
401(k)	171
Employer DB contributions	7
Benefit payments	67
Employer DC contributions	13
Hedging devices used:	
Stock index futures	
Defined benefit asset mix:	
Stocks	44.9%
Fixed income	51.6%
Real estate equity	3.5%
Defined contribution asset mix:	
Company stock	9.3%
Other stock	18.7%
GICs/BICs	72%

FAIRLAWN, Ohio — As of Sept. 30, GenCorp Inc.'s total employee benefit assets decreased 7.9% to $1.583 billion from $1.719 billion a year earlier. Defined benefit assets decreased 6.9% during the same period, to $1.311 billion from $1.408 billion. Defined contribution assets decreased 12.5%, to $272 million from $311 million.

Equity managers: Domestic — J.P. Morgan; Neuberger & Berman; and Wilkens & Nanovic.

International — Bankers Trust and J.P. Morgan.

Fixed-income managers: Domestic — ASB and Lincoln Capital.

International — Bankers Trust.

Real estate managers: First Management Group.

The master trustee is Northern Trust; the global custodians are J.P. Morgan and Bankers Trust.

Key personnel overseeing the investment management of the fund are Dave McNiff, director-investment management; and Sina Baldwin, manager-investment management.

General Dynamics Corp.

	($ millions)
Total assets	6,069
Defined benefit	3,869
401(k)	2,200
Employer DB contributions	140
Benefit payments	140
Employer DC contributions	60
Internally managed assets:	
Total DB	2,641
Total DC	243
Hedging devices used:	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	30.4%
Fixed income	64.7%
Real estate equity	0.1%
GICs/BICs	4.8%
Defined contribution asset mix:	
Company stock	3.9%
Other stock	11.4%
Fixed income	16.4%
GICs/BICs	68.3%

ST. LOUIS — As of Sept. 30, General Dynamics Corp.'s total employee benefit assets increased 1.2% to $6.069 billion from $6 billion a year earlier. Defined benefit assets decreased 0.8% during the same period, to $3.869 billion from $3.9 billion. Defined contribution assets increased 4.8% to $2.2 billion from $2.1 billion.

Defined benefit managers: Alliance; Boatmen's; Delaware Investment; GE Realty, GEIC International; Jennison; Henry Kaufman; C.J. Lawrence; Lazard Freres; Lincoln Capital; Miller, Anderson; J.P. Morgan; Rosenberg Institutional Equity; Sasco Capital; and Wells Fargo-Nikko.

Defined contribution managers: Aetna; Alliance; Delaware Investment; Equitable; Mercantile Trust; Metropolitan Life; J.P. Morgan; Prudential; Rosenberg Institutional Equity; Travelers; and Wells Fargo-Nikko.

The master trustee and the global custodian is Chase Manhattan.

Key personnel overseeing the investment management of the fund are Charles Walbrandt, staff vice president-trust investment operation, and Rebecca Roesch, corporate manager-trust investment operation.

General Electric Co.

	($ millions)
Total assets	27,108
Defined benefit	22,474
401(k)	4,634
Employer DB contributions	0.084
Benefit payments	1,189
Employer DC contributions	613
Internally managed assets:	

Total DB	20,404
Total DC	4,634
Hedging devices used: —	
Stock options	
Bond options	
Stock index futures	
Fixed-income futures	
Short selling	
Defined benefit asset mix:	
Stocks	46%
Fixed income	30%
Cash equivalents	5%
Real estate equity	10%
GICs/BICs	2%
Other	7%
Defined contribution asset mix:	
Other stock	19.2%
Fixed income	49%
Cash equivalents	4.4%
GICs/BICs	26.3%
Other	1.1%

STAMFORD, Conn. — As of Sept. 30, General Electric Co.'s total employee benefit assets decreased 6.2% to $27.108 billion from $28.912 billion a year earlier. Defined benefit assets decreased 7.6% during the same period, to $22.474 billion from $24.318 billion. Defined contribution assets increased 0.9%, to $4.634 billion from $4.594 billion.

Equity managers: Domestic — Cursitor Eaton; Goldman Sachs; Marsh & Cunningham; J.P. Morgan; Morgan Guaranty; Nomura; T. Rowe Price; Progress Trusts; Fayez Sarofim; and Schroeder's.

Fixed-income managers: Domestic — Capital Holdings; Goldman Sachs; J.P. Morgan; NYSSA; and Ryan Labs.

Real estate managers: Equitable; J.P. Morgan; and Hancock.

The master trustee is State Street Bank; the investment consultants are SEI; EAI; and Callan.

Key personnel overseeing the investment management of the fund are Dale Frey, chairman and president, General Electric Investment Corp.; Arthur Bahr, executive vice president-equities; and John Myers, executive vice president-equities and trustee.

General Motors Corp.

	($ millions)
Total assets	36,300
Defined benefit	30,700
Total defined contribution	5,600

NEW YORK — As of Sept. 30, General Motors Corp.'s total employee benefit assets decreased 11.2% to $36.3 billion from $40.9 billion a year earlier. Defined benefit assets decreased 13.5% during the same period, to $30.7 billion from $35.5 billion. Defined contribution assets increased 3.7% to $5.6 billion from $5.4 billion.

Managers: Aetna; AEW; American National, Chicago; AmeriTrust; Associated Capital; Bankers Trust; Baring America; Baring International; Barrow, Hanley, Mewhinney & Strauss; Batterymarch; BEA; Beekman Capital; Sanford Bernstein; Boston Co. Real Estate; Brinson Partners; Canada Life Investment; Capital Guardian Trust; Chancellor; Chase Manhattan; Citibank; County NatWest Investment; Cypress; Delaware Investment; Dewey Square; DFA; Fidelity Management; First National Bank, Boston; Franklin Portfolio; Frontier Capital; G.T. Capital; Harris Trust; Hill Samuel; W.R. Huff; INVESCO; Jennison; Kleinwort Benson International; Lazard Freres; Lehman-Ark; Lincoln Capital; MacKay-Shields; Magten; Marathon Investment; Matrix; Mellon Bank; Merrill Lynch; Metropolitan Life; Morgan Grenfell; Morgan Guaranty Trust; Morgan Stanley; National Bank of Detroit; Nomura; Oechsle; Provident Investment; Prudential; R.P.I. Institutional; Rosenberg Institutional; Rowe Price-Fleming; N.M. Rothschild; Schroder Capital; TAL Investment; TCW Asset; United Capital; Value Line Asset; Weiss Peck & Greer; Wells Fargo Bank; and WorldInvest.

The master trustees are Bankers Trust, Mellon Bank and Chase Manhattan; the global custodian is Chase Manhattan.

Key personnel overseeing the investment management of the fund are W. Gordon Binns Jr., vice president and chief investment funds officer, and R. Charles Tschampion, director-portfolio strategy and manager relations group.

Employees' Retirement System of Georgia

	($ millions)
Total assets	3,750
Defined benefit	3,750

ATLANTA — As of Sept. 30, the Employees' Retirement System of Georgia's total employee benefit assets increased 8.4% to $3.75 billion from the $3.458 billion the Money Market Directory reported the fund had as of June 30, 1989. All assets are defined benefit.

Key personnel overseeing the investment management of the fund are Rudolph Johnson, director, and James Larche, deputy director.

Teachers Retirement System of Georgia

	($ millions)
Total assets	9,871
Defined benefit	9,871
Employer DB contributions	488
Benefit payments	343
Internally managed assets	5,992
Defined benefit asset mix:	
Stocks	40%
Fixed income	56%
Cash equivalents	4%

ATLANTA — As of Sept. 30, the Teachers Retirement System of Georgia's total employee benefit assets increased 10.8% to $9.871 billion from $8.908 billion as of June 30, 1989. All assets are defined benefit.

Equity managers: Domestic — Atlanta Capital; Citizens & Southern Trust; INVESCO; and Wellington.

The master trustee is Citizens & Southern Trust.

Key personnel overseeing the investment management of the fund are Charles W. Cary, director-investment services division and Nancie Boedy, assistant director-investment services division.

Georgia-Pacific Corp.

	($ millions)
Total assets	1,602
Defined benefit	1,072
Total defined contribution	530
Profit-sharing	61
401(k)	469
Employer DB contributions	na
Benefit payments	na
Employer DC contributions	379
Internally managed assets:	
Total DB	28
Total DC	379
Defined benefit asset mix:	
Stocks	64%
Fixed income	28%
Cash equivalents	2%
Real estate equity	4%
GICs/BICs	2%
Defined contribution asset mix:	
Company stock	7%
Other stock	9%
GICs/BICs	84%

ATLANTA — As of Sept. 30, Georgia-Pacific Corp. had total employee benefit assets of $1.602 billion. Defined benefit assets were $1.072 billion; defined contribution assets, $530 million.

Investment managers: — Aetna; Chancellor; Chase Manhattan; Cramer, Rosenthal & McGlynn; Home Capital; HLM Management; Husic Capital; Invista Capital; JMB; KKR; Loomis, Sayles; Mercator; Morgan Stanley; PIMCO; RREEF; TCW; Tweedy Browne; Wells Fargo Nikko; Westwood; and WorldInvest.

The master trustee is Bankers Trust; the investment consultant is Ennis, Knupp & Associates.

Key personnel overseeing the investment management of the fund are John E. Stettler, director-benefit investments/risk management; and Anthony R. Abbot, assistant director-benefit investments.

Grumman Corp.

	($ millions)
Total assets*	3,101
Defined benefit	2,130
401(k)	971
Employer DB contributions	0
Benefit payments	83
Employer DC contributions	17
**P&I estimate*	
Internally managed assets:	
Total DB	1,977
Total DC	971
Defined benefit asset mix:	
Stocks	39%
Fixed income	31%
Cash equivalents	23%
Real estate equity	5%
Other	2%
Defined contribution asset mix:	
Company stock	21%
Other stock	10%
Fixed income	13%
GICs/BICs	56%

BETHPAGE, N.Y. — Grumman Corp.'s total employee benefit assets decreased 2.2% to $3.101 billion from $3.17 billion a year earlier, according to *Pensions & Investments* estimates. The estimate is based on $3.14 billion the company reported as of Dec. 31, 1989. Defined benefit assets increased an estimated 0.9% during the same period, to $2.13 billion from $2.15 billion. Defined contribution assets were estimated to have decreased

Bottom 800 defined benefit asset mix

	1990	1989
Aggregate		
Domestic stock	40.9%	44.3%
Domestic fixed income	34.5	31.2
Cash	9.1	9.3
Real estate equity	4.8	4.0
Mortgages	0.9	1.1
GIC/BIC	3.8	4.1
Private Placements	0.3	0.1
Annuities	0.7	0.7
International equity	2.8	na
International fixed income	0.4	na
Venture capital	0.4	0.4
Oil/gas	0.1	0.1
LBOs	0.1	0.1
Other	1.2	1.4
Corporate		
Domestic stock	44.3%	47.5%
Domestic fixed income	29.8	27.0
Cash	9.4	9.4
Real estate equity	4.6	4.2
Mortgages	0.4	0.4
GIC/BIC	4.4	4.3
Private Placements	0.2	0.1
Annuities	0.9	0.8
International equity	3.5	na
International fixed income	0.4	na
Venture capital	0.6	0.6
Oil/gas	0.1	0.1
LBOs	0.1	0.1
Other	1.3	1.4
Public		
Domestic stock	35.7%	39.0%
Domestic fixed income	44.7	41.0
Cash	8.9	8.3
Real estate equity	5.0	3.8
Mortgages	1.7	2.1
GIC/BIC	0.3	1.8
Private Placements	0.1	0.2
Annuities	0.5	0.2
International equity	1.7	na
International fixed income	0.2	na
Venture capital	0.3	0.3
Oil/gas	0.0	0.0
LBOs	0.0	0.0
Other	0.9	1.3
Union		
Domestic stock	28.9%	34.6%
Domestic fixed income	42.7	35.8
Cash	9.2	11.9
Real estate equity	6.0	3.3
Mortgages	2.9	3.3
GIC/BIC	7.0	6.2
Private Placements	0.9	0.1
Annuities	0.6	1.0
International equity	0.2	na
International fixed income	0.2	na
Venture capital	0.1	0.1
Oil/gas	0.0	0.0
LBOs	0.0	0.0
Other	1.3	1.6

Bottom 800 defined contribution asset mix

	1990	1989
Aggregate		
Domestic stock	15.4%	18.6%
Company stock	24.5	23.0
Domestic fixed income	10.1	10.9
Cash	8.5	6.8
Real estate equity	1.2	0.6
Mortgages	0.2	0.1
Annuities	0.9	0.9
GIC/BIC	32.7	36.9
International equity	0.3	0.3
International fixed income	0.1	0.0
Alternative investments*	0.0	0.0
Other	6.1	1.9
Corporate		
Domestic stock	15.2%	18.8%
Company stock	27.1	26.2
Domestic fixed income	8.1	7.9
Cash	7.1	5.8
Real estate equity	1.0	0.6
Mortgages	0.0	0.0
Annuities	0.7	0.1
GIC/BIC	34.2	38.7
International equity	0.3	0.3
International fixed income	0.1	0.0
Alternative investments*	0.0	0.0
Other	6.2	1.6
Public		
Domestic stock	26.7%	28.0%
Domestic fixed income	23.1	21.1
Cash	11.7	10.4
Real estate equity	0.9	1.0
Mortgages	0.0	0.8
Annuities	6.8	3.9
GIC/BIC	21.8	28.0
International equity	1.3	0.0
International fixed income	0.0	0.0
Alternative investments*	0.0	0.3
Other	7.4	6.5
Union		
Domestic stock	12.8%	13.4%
Domestic fixed income	34.2	43.5
Cash	31.1	19.7
Real estate equity	2.4	0.9
Mortgages	3.4	0.4
Annuities	0.3	13.3
GIC/BIC	14.0	8.5
International equity	0.0	0.0
International fixed income	0.0	0.0
Alternative investments*	0.0	0.0
Other	1.8	0.3

*Composed of venture capital, oil and gas, LBOs and private placements

4.8%, to $971 million from $1.02 billion.

Real estate managers: CIGNA; Equitable; and Prudential.

The master trustee is Bank of New York.

The key person overseeing the investment management of the fund is W.R. Parmentier, assistant treasurer/investment manager.

GTE Corp.

	($ millions)
Total assets	11,825
Defined benefit	9,723
Thrift or savings	2,102
Employer DB contributions	na
Benefit payments	264
Employer DC contributions	67
Internally managed assets	
Total DB	2,623
Hedging devices used:	
Stock options	
Bond options	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	60%
Fixed income	24%
Cash equivalents	15%
Real estate equity	1%
Defined contribution asset mix:	
Company stock	47%
Other stock	11%
Fixed income	1%
GICs/BICs	41%

STAMFORD, Conn. — As of Sept. 30, GTE Corp.'s total employee benefit assets decreased 4.8% to $11.825 billion from $12.423 billion a year earlier. Defined benefit assets decreased 8.9% during the same period, to $9.723 billion from $10.669 billion. Defined contribution assets increased 19.8%, to $2.102 billion from $1.754 billion.

Equity managers: Domestic — Acorn; Baker, Nye; Bankers Trust; Sanford Bernstein; BMI; Cashman, Farrell; Concord; Darien; Eagle; First Manhattan; First Pacific; Franklin Portfolio; Frontier; Geocapital; GTE Investment; Hotchkis and Wiley; Oppenheimer; Pacific Financial; Provident Investment; Rampart; Richter; Rosenberg Institutional; Donald Smith; and Weiss, Peck and Greer.

International — Bankers Trust; Baring; Grantham, Mayo, Van Otterioo; GTE Investment; J.P. Morgan; Mercator; Nikko; Philippe; Rowe Price-Fleming; TCW/Cursitor-Eaton; and Yamaichi.

Fixed-income managers: Domestic — Baring; Darien; Pacific; and Rampart.

International — Beutel, Goodman; Security Capital; and WorldInvest.

Real estate managers: AEW/State Street Bank; Citibank; and TCW.

Non-traditional managers: Chancellor; Chase Investors; Energy Investors; Forest Investment; GTE Investment; John Hancock; Manufacturers National; and TCW.

Bankers Trust is the master trustee and global custodian.

Key personnel overseeing the investment management of the fund are John B. Carroll, president of GTE Investment Management Corp., a subsidiary of GTE Corp.; T. Britton Harris IV, vice president-pension fund management; and Stephen Weidemann, vice president-fixed-income management.

H

Halliburton Co.

	($ millions)
Total assets	2,260
Total defined contribution	2,260
Profit-sharing	1,197
Other	1,063
Employer DC contributions	75
Internally managed assets	929
Hedging devices used:	
Stock options	
Bond options	
Defined contribution asset mix:	
Company stock	6%
Other stock	24%
Fixed income	21%
Cash equivalents	3%
GICs/BICs	45%
Real estate equity	1%

DALLAS — As of Sept. 30, Halliburton Co.'s total employee benefit assets decreased 0.4% to $2.26 billion from $2.27 billion a year earlier. All assets are defined contribution.

Equity managers: Domestic — Eagle; GAMCO; Husic; Lehman-Ark; Phoenix Investment; PIMCO; and Fayez Sarofim.

International — Boston Overseas; SBC; and Schroder Investment.

Fixed-income managers: Domestic — Lehman-Ark; Neuberger & Berman; and Sovran.

International — Putnam.

The master trustee and global custodian is State Street Bank; the investment consultant is SEI.

The key person overseeing investment management of the fund is Nathaniel H. Duffield, director-trust investments.

Employees Retirement System of the State of Hawaii

	($ millions)
Total assets*	4,119
Defined benefit	4,119
Employer DB contributions	13
Benefit payments	244
*as of June 30, 1990	
Internally managed assets	855
Hedging devices used:	
Stock options	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	45%
Fixed income	31%
Cash equivalents	5%
Real estate equity	9%
Mortgages	9%
GICs/BICs	1%

HONOLULU — As of June 30, the Employees Retirement System of the State of Hawaii's total employee benefit assets increased 1.7% to $4.119 billion from $4.051 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Alliance; Barrow, Hanley, Mewhinney & Strauss; Bradford & Marzec; Cadinha; Delaware Investment; [illegible]nney & Denney; Hanson Investment; J.B. Havre; INVESCO; McCowan and Denis Wong.

International — Daiwa International; Mellon Capital; Nikko; Nomura and Schroder Capital.

Fixed-income managers: Domestic — Brinson; Lowe, Brokenbrough, Tierney, & Tattersall; PIMCO; Scudder, Stevens, & Clark; and Security Pacific.

International — ABD; Capital Management International; INVESCO MIM; Prudential; and Putnam.

Real estate managers: Aetna; BetaWest; CIGNA; Trammel Crow; John Hancock; Metropolitan Life; and Public Storage.

The master custodian and global custodian is Bank of New York; the investment consultants are Callan and SEI.

Key personnel overseeing the investment management of the fund are Stanley Siu, executive secretary; and David Shimabukuro, assistant secretary.

Hercules Inc.

	($ millions)
Total assets	1,600
Defined benefit	1,260
Total defined contribution	340
Thrift or savings	20
401(k)	320
Employer DB contributions	2
Benefit payments	111
Employer DC contributions	45
Hedging devices used:	
Stock options	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	57.4%
Fixed income	28%
Cash equivalents	0.9%
Real estate equity	11%
GICs/BICs	2.7%

THE GLOBAL HORIZON CUSTOMER

To achieve the full power of your investment strategy, choose Global Horizon SM, State Street's complete array of financial asset services.

We have solutions for your present and future needs. From simple safekeeping to master global custody. From cash control to currency management. For regular or derivative securities. In established or emerging markets.

Design your own integrated global reports using the most advanced multicurrency accounting system available.

Wherever you invest, in whatever assets, Global Horizon can leverage your strategy. Call Frank Antin at 617/847-2511 to hear more.

State Street®

State Street Bank and Trust Company, wholly-owned subsidiary of State Street Boston Corporation, 225 Franklin Street, Boston, MA 02110. (617) 786-3000. Offices in Boston, New York, Los Angeles, Toronto, London, Munich, Brussels, Luxembourg, Cayman Islands, Tokyo, Sydney, Melbourne, Hong Kong. Member FDIC. © Copyright State Street Boston Corporation, 1991.

Defined contribution asset mix:	
Company stock	12%
Other stock	8%
Cash equivalents	3%
GICs/BICs	77%

WILMINGTON, Del. — As of Sept. 30, Hercules Inc.'s total employee benefit assets decreased 8.7% to $1.6 billion from $1.752 billion a year earlier. Defined benefit assets decreased 10.8% during the same period, to $1.26 billion from $1.412 billion. Defined contribution assets remained the same at $340 million.

Equity managers: Domestic — Capital Guardian; Cooke & Bieler; Geewax Terker; Lazard Freres; Marvin & Palmer; Mellon Capital.

International — Fidelity Investments; J.P. Morgan; Marvin & Palmer; Warburg.

Fixed-income managers: Domestic — Mellon Capital; J.P. Morgan.

Real estate managers: Aetna; Equitable; Prudential.

GIC managers: Aetna; New England Life.

Cash manager: Bankers Trust.

The master trustee is Bankers Trust; the global custodian is Chase Manhattan; the investment consultant is Frank Russell.

Key personnel overseeing the investment management of the fund are John R. Long, director-investments; and D. Robert O'Donnell, senior accounting specialist.

Honeywell Inc.

	($ millions)
Total assets	2,839
Defined benefit	1,952
401(k)	887
Employer DB contributions	33
Benefit payments	107
Employer DC contributions	na

Defined benefit asset mix:	
Stocks	43.4%
Fixed income	30.7%
Cash equivalents	2%
Real estate equity	10.1%
GICs/BICs	0.3%
Private placements	6.4%
Venture capital	3.9%
Oil & gas	3.2%
Defined contribution asset mix:	
Other stock	16.3%
GICs/BICs	72.1%
Other	11.6%

MINNEAPOLIS — As of Sept. 30, Honeywell Inc.'s total employee benefit assets decreased 2.4% to $2.839 billion from $2.909 billion a year earlier. Defined benefit assets decreased 6.9% during the same period, to $1.952 billion from $2.096 billion. Defined contribution assets increased 9.1%, to $887 million from $813 million.

Equity managers: Domestic — Alliance; Forstmann-Leff; GAMCO; Jundt Associates; and Mellon Capital.

International — Baring International and [illegible]S International.

Fixed-income managers: Domestic — Fischer, Francis, Trees & Watts.

International — Brinson.

Real estate managers: Aetna; AMB; Baring Institutional Realty; Brinson; Coldwell; State Street Bank; and TCW Asset.

Private placement managers: Bridge Capital; John Hancock; Olympus Private Placement Fund; and TCW Asset.

Oil & gas managers: Chase Investors; Cherokee Resources; First Reserve; and TCW Asset.

Venture capital managers: Advent International; Associated Venture; Brinson; Centennial; Concord; DLJ Growth; Dougery Jones & Wilder; Forstmann Little; Investech; Medical Innovations; Morgan, Holland; Narragansett; New Court Partners; Norton; O'Donnell & Masur; Recovery Management; Robertson Coleman; T.A. Associates; T. Rowe Associates; and Welsh, Carson.

GIC manager: Travelers.

The master trustee is Boston Safe; the global custodian is Chase; the investment consultant is Rogers, Casey.

Key personnel overseeing the investment management of the fund are Deborah W. Veverka, director-pension investments, and Jean T. Wangard, manager-pension investments.

National Benefit Fund for Hospital & Health Care Employees

	($ millions)
Total assets	1,932
Defined benefit	1,932
Employer DB contributions	66
Benefit payments	45
Defined benefit asset mix:	
Stocks	50.7%
Fixed income	12.2%
Cash equivalents	8.6%
Real estate equity	3.9%
GICs/BICs	24.6%

NEW YORK — As of Sept. 30, the National Benefit Fund For Hospital & Health Care Employees' total employee benefit assets decreased 13.8% to $1.932 billion from $2.241 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — FLA Asset; Lehman Ark; and Loomis, Sayles.

International — FLA; Lehman Ark; and Loomis, Sayles.

Fixed-income managers: Domestic — Amalgamated Bank; Criterion; PIMCO; WR Lazard; and State Street.

Real estate managers: Equitable and Prudential.

The master trustee and global custodian is Northern Trust Co.; the investment consultant is Marco Consulting Group.

The key person overseeing the investment management of the fund is Elly Tilson, executive director.

Hughes Aircraft Co.

	($ millions)
Total assets*	6,300
Defined benefit	4,200
Other	2,100
Employer DB contributions	na
Benefit payments	na
Employer DC contributions	na

**From Money Market Directory*

LOS ANGELES — As of June 30, Hughes Aircraft Co.'s employee benefit assets totaled $6.3 billion, according to the 1991 Money Market Directory, a decrease of 4.1% from the $6.572 billion the company reported Sept. 30, 1989. Defined benefit assets decreased 6.7% during the same period, to $4.2 billion from $4.5 billion. Defined contribution assets, in a savings plan with a 401(k) feature, increased 1.4%, to $2.1 billion from $2.072 billion.

I.A.M. National Pension Fund

	($ millions)
Total assets	1,646
Defined benefit	1,642
Total defined contribution	4
Other	4
Employer DB contributions	69
Benefit payments	81
Employer DC contributions	2

Defined benefit asset mix:	
Stocks	48.2%
Fixed income	42.9%
Cash equivalents	8.9%
Defined contribution asset mix:	
Cash equivalents	100%

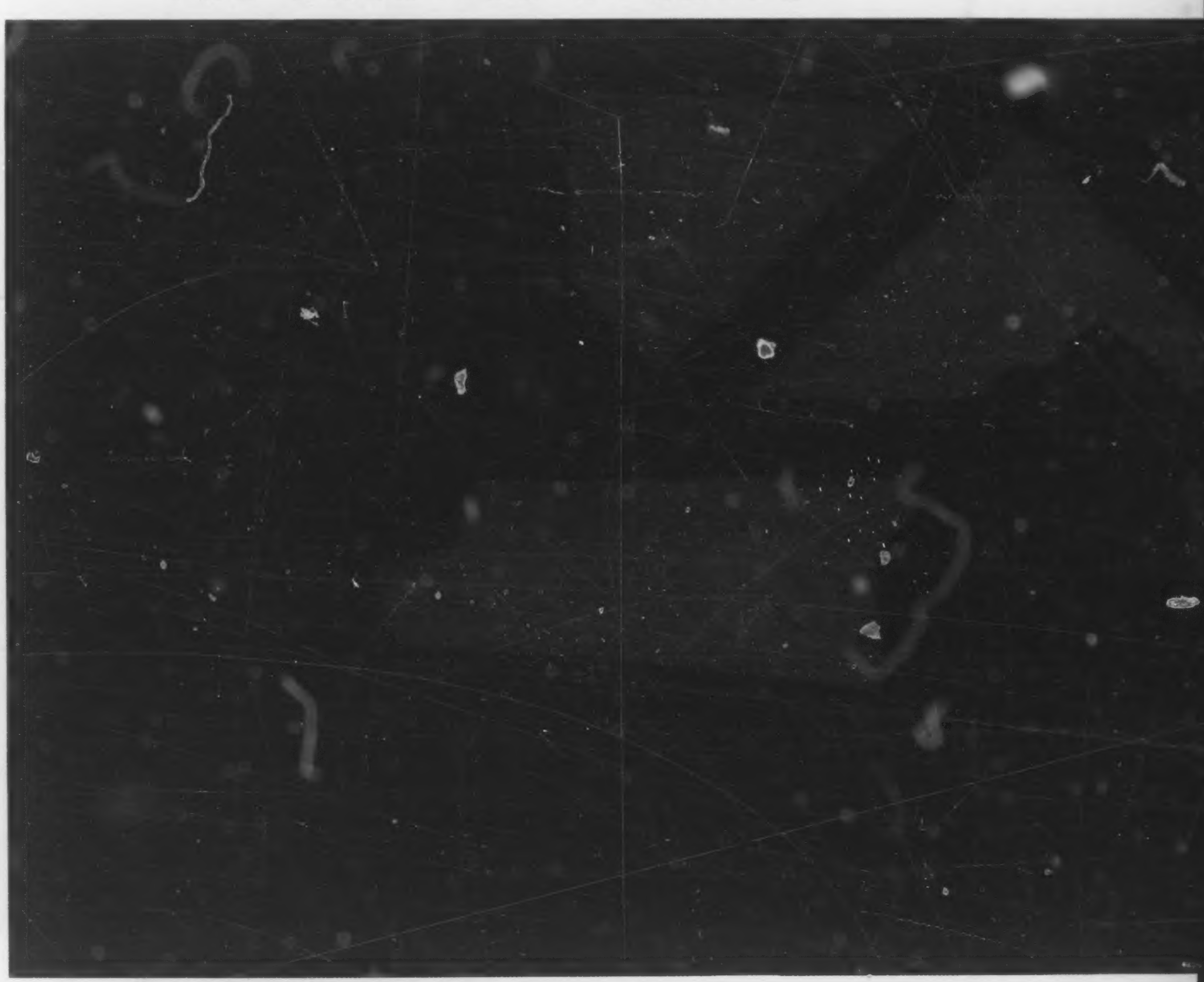
WASHINGTON — As of Sept. 30, the I.A.M. National Pension Fund's total employee benefit assets decreased 2.9% to $1.646 billion from $1.695 billion a year earlier. Defined benefit assets decreased 2.9% during the same period, to $1.642 billion from $1.693 billion. Defined contribution assets doubled to $4 million from $2 million.

Equity managers: Domestic — Dodge & Cox; Lazard Freres; State Street Bank; Stein Roe & Farnham.

Fixed-income managers: Domestic — Dodge & Cox; Lazard Freres; State Street; Stein Roe.

Cash manager: Payden & Rygel.

THE CREATION OF VALUE



The Creation of Value *by Douglas Fraser, Calgary. "The creation of value is the union of ideas and action," said the artist. "In my painting, an idea matures into a real-life application — it transcends the hypothetical and becomes tangible."*

The master trustee is State Street.

The board of trustees oversees investment management of the fund.

IBM Corp.

	($ millions)
Total assets	25,000
Defined benefit	21,200
401(k)	3,800
Employer DB contributions	0
Benefit payments	700
Employer DC contributions	115
Internally managed assets:	
Total DB	11,600
Hedging devices used:	
Stock options	
Bond options	
Stock index futures	
Fixed-income futures	1

STAMFORD, Conn. — As of Sept. 30, IBM Corp.'s total employee benefit assets decreased 3% to $25 billion from $25.775 billion a year earlier. Defined benefit assets decreased 5.8% during the same period, to $21.2 billion from $22.5 billion. Defined contribution assets increased 16%, to $3.8 billion from $3.275 billion.

Equity managers: Domestic — Alliance; Butler; Chancellor; Columbus Circle; Delaware; Dillon, Read; DFA; Fidelity; Forstmann Little; F.S. Equity; Independence; John Hancock; Lincoln Capital; NCM; Resource Investors; Sasco; State Street Bank; Warburg; and Wellington.

International — Acadian; Capital Guardian; DFA; DSI; HD International; Matuschka Moser; J.P. Morgan; Nomura; Oechsle; Rowe Price-Fleming; and State Street Bank.

Fixed-income managers: Domestic — BEA; Fischer, Francis, Trees & Watts; Hoisington; Lincoln Capital; Miller, Anderson & Sherrerd; and PIMCO.

International — Morgan Grenfell and WorldInvest.

Real estate managers: AEW; Cabot; Dreyfus; Equitable; Grubb & Ellis; Wells Fargo; and Yarmouth.

Chase Manhattan is the master trustee and global custodian; the investment consultant is Frank Russell.

Public Employees Retirement System of Idaho

	($ millions)
Total assets	1,637
Defined benefit	1,637
Employer DB contributions	97
Benefit payments	98
Hedging devices used:	
Stock options	
Bond options	
Defined benefit asset mix:	
Stocks	41.1%
Fixed income	38.2%
Cash equivalents	3.2%
Real estate equity	9.5%
Mortgages	8%

BOISE, Idaho — As of Sept. 30, the Public Employees Retirement System of Idaho's total employee benefit assets decreased 0.4% to $1.637 billion from $1.643 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Columbus Circle; Eaton Vance; Husic; Mellon Capital; Mountain Pacific; Newell; and Wellington.

International — Boston International; Rowe Price-Fleming; and Schroder Capital.

Fixed-income managers: Domestic — BEA; Sanford Bernstein; D.B. Fitzpatrick; and State Street Bank.

Real estate managers: Cabot, Cabot & Forbes; Equitable; LaSalle; Metropolitan Life; J.W. O'Connor; Prudential; and Sentinel.

The master custodian and global custodian is Mellon; the investment consultant is Dorn & Helliesen.

Key personnel overseeing the investment management of the fund are John F. Hart, chief investment officer; and Isabelle Fowler, senior research analyst.

Illinois Municipal Retirement Fund

	($ millions)
Total assets	4,239
Defined benefit	4,239
Employer contributions	203
Benefit payments	205
Internally managed assets	245
Hedging devices used:	
Bond options	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	46%
Fixed income	34.5%
Cash equivalents	5.8%
Real estate equity	10.8%
Mortgages	1%
Venture capital	1.9%

CHICAGO — As of Sept. 30, the Illinois Municipal Retirement Fund's total employee benefit assets decreased 2% to $4.239 billion from $4.326 billion on Aug. 31, 1989. All assets are defined benefit.

Equity managers: Domestic — ANB; Campbell, Cowperthwait; Dalton, Greiner, Hartman, Maher; DFA; Fidelity Management Trust; Frontier; Lincoln Capital; Provident Investment; and Wall Street Associates.

International — ANB; Baring; Nomura Capital; Schroder Capital; and TIMCO.

Fixed-income managers: Domestic — ANB; Criterion; Fidelity Management Trust; and Payden & Rygel.

International — Julius Baer.

Real estate managers: Equitable Real Estate; JMB; LaSalle Advisors; Piedmont Realty; RREEF; Sentinel Real Estate; and TCW Realty.

Venture capital managers: Abbott Capital; Brinson Partners; Larimer; and Oxford.

The master trustee is Northern Trust; the global custodian is Northern Trust-London; the investment consultants are William M. Mercer and Institutional Property Consultants.

Key personnel overseeing the investment management of the fund are Robert L. Cusma, executive director; Walter J. Koziol, director-investments; and Edward N. Sambol, investment manager.

Illinois State Board of Investment

	($ millions)
Total assets	3,045
Defined benefit	3,045
Employer DB contributions	115
Benefit payments	215
Internally managed assets	1,120
Hedging devices used:	
Stock options	
Stock index futures	
Defined benefit asset mix:	
Stocks	42%
Fixed income	40%
Cash equivalents	3%
Real estate equity	10%
Other	5%

CHICAGO — As of Sept. 30, the Illinois State Board of Investment's total employee benefit assets decreased 4% to $3.045 billion from $3.173 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Ariel; Cooke & Bieler; Disciplined; Fidelity Management; Lazard Freres; Lincoln Capital; Marshall Plan; Newbold's; Southeastern; TCW; and T-K Capital.

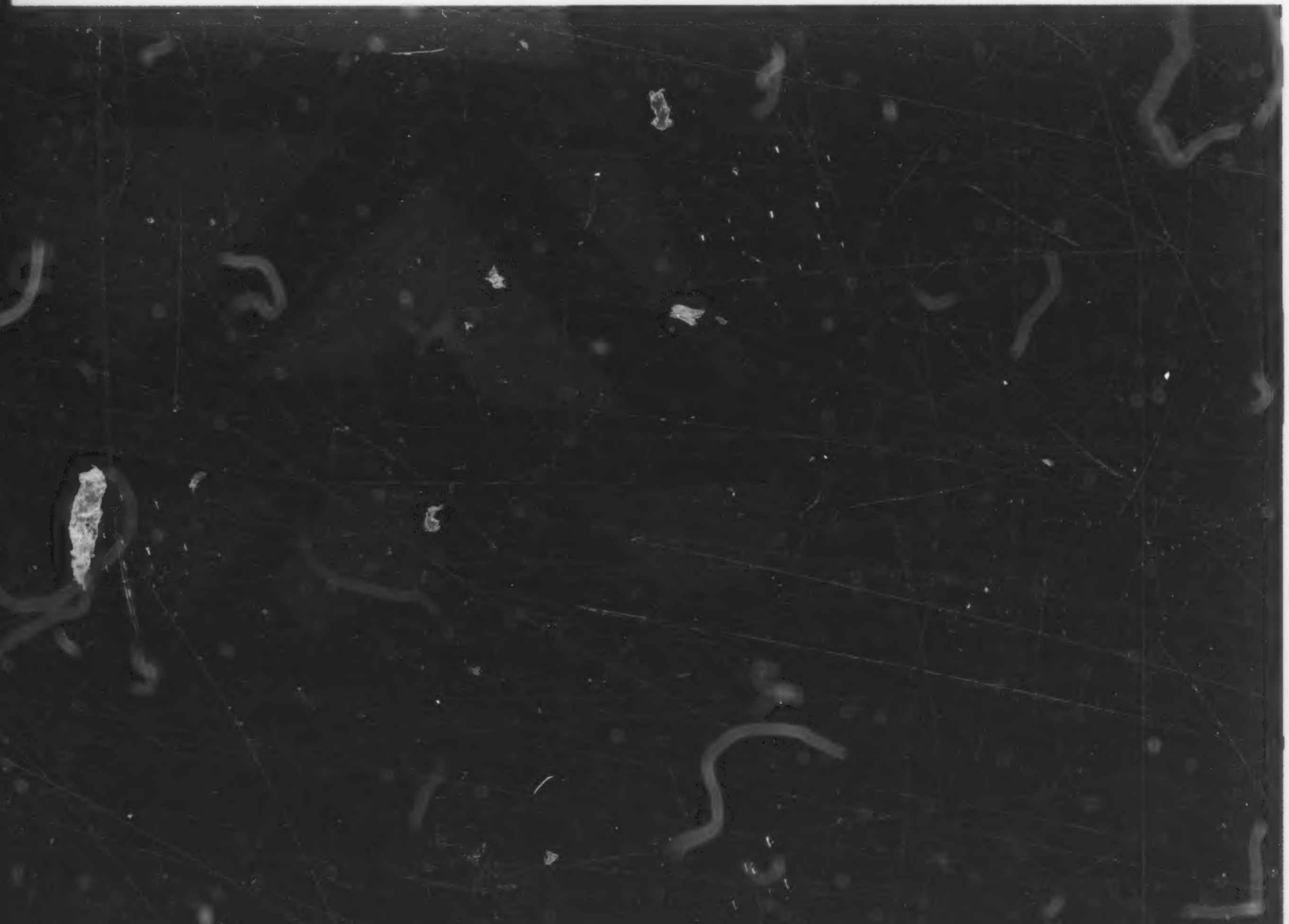
International — Acadian; Brinson; Candover; Globe Finlay; Hill Samuel Investment Advisers; TCW Asset; and Templeton.

Fixed-income managers: Domestic — Calamos; Delaware; Fidelity Management; and J.P. Morgan.

Real estate managers: Aetna; Brinson; Heitman; Investors Conduit, JMB; PSI; TCW; VMS Mortgage; and Zell/Merrill Lynch.

Northern Trust is the master custodian and global custodian; the investment consultant is Pension Consulting Alliance.

Key personnel overseeing the investment management of the fund are Gregory C. Nagle, director; Larry Darlington, fixed-income manager; and Scott Pape, equity manager.



In institutional real estate investing, value is created through the deliberate application of sound ideas.

At The Yarmouth Group, ideas emerge from portfolio strategies based on each client's needs. They are realized through rigorous investment objectives and active management of each asset.

At The Yarmouth Group, the union of ideas and action leads to the creation of value.

THE YARMOUTH GROUP
REAL ESTATE INVESTMENT ADVISORS

THE YARMOUTH GROUP, INC. • NEW YORK 212/355-4810 • CHICAGO 312/861-1105 • ATLANTA 404/231-0400 • LOS ANGELES 213/955-7979 • SAN FRANCISCO 415/392-1090 • LONDON 071-408-1325 • PARIS 42-94-60-42

Illinois State Universities Retirement System

	($ millions)
Total assets*	3,959
Defined benefit	3,959
Employer DB contributions	113
Benefit payments	195
*as of June 30, 1990	
Internally managed assets	22
Hedging devices used:	
Stock options	
Bond options	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	58%
Fixed income	30%
Real estate equity	12%

CHAMPAIGN, Ill. — As of June 30, the Illinois State Universities Retirement System's total employee benefit assets increased 2.9% to $3.959 billion from $3.845 billion on Sept. 30, 1989. All assets are defined benefit.

Equity managers: Domestic — Batterymarch and Fayez Sarofim.

International — Wells Fargo-Nikko.

Fixed-income managers: Domestic — PIMCO and Wells Fargo-Nikko.

International — Wells Fargo-Nikko.

Real estate managers: Aetna; Equitable; JMB; and RREEF.

Other manager: PIMCO.

The master trustee is Northern Trust; the investment consultant is Ennis, Knupp.

Key personnel overseeing the investment management of the fund are Donald E. Hoffmeister, executive director; Kenneth E. Codlin, chief investment officer; and Jeanne Valcik, associate investment officer.

Teachers' Retirement System of the State of Illinois

	($ millions)
Total assets	8,175
Defined benefit	8,175
Employer contributions	293
Benefit payments	520
Hedging devices used:	
Stock options	
Bond options	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	44%
Fixed income	36%
Cash equivalents	7%
Real estate equity	12%
Venture capital	1%

SPRINGFIELD, Ill. — As of Sept. 30, the Teachers' Retirement System of the State of Illinois' total employee benefit assets decreased 3.5% to $8.175 billion from $8.475 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — American National Bank, Chicago; Ariel; Brandywine; Brinson Partners; Cedar Hill; Chase Investors; Cozad; Eagle; Hotchkis and Wiley; Husic Capital; Keystone; Lazard Freres; Lehman Ark; Lincoln Capital; Morgan Stanley Asset; Munder; NCM Capital; Oppenheimer; RCM Capital; and Denis Wong.

International — Bankers Trust Investment; Burgess Capital; Daiwa International; Globe Finlay; HD International; Murray Johnstone; PCM; Scudder, Stevens & Clark; and State Street Bank.

Fixed-income managers: Domestic — Bear Stearns Asset; PIMCO; and State Street Bank.

International — Brinson Partners; J.P. Morgan Investment; and Putnam Advisory.

Real estate managers: Bear Stearns/Capital Associates; Bennett & Kahnweiler; Brinson Partners; Alex. Brown Kleinwort Benson; JMB; Jones Lang Wootton; MacFarlane; and TCW Realty.

Venture capital managers: Frontenac and Weiss Peck & Greer.

Foreign exchange managers: Matuschka and N.M. Rothschild.

Tactical asset allocation manager: Brinson Partners.

The master trustee is Harris Trust; the global custodians are Harris Trust and State Street Bank; the investment consultant is Callan Associates.

Key personnel overseeing the investment management of the fund are Fred Husmann, executive director, and William M. Stephens, chief investment officer.

SUPERIOR FIXED INCOME MANAGEMENT

- First Decile Over Ten Years
- Above Median Manager 15 Consecutive Years
- Below Median Variability of Returns

SOVRAN
CAPITAL MANAGEMENT
CORPORATION

Contact: Donald A. Steinbrugge
(804) 788-3805

Based on composite performance through 9/30/90 *Source: SEI*

AMLI
REALTY CO.

IS PLEASED TO ANNOUNCE THE
ACQUISITION OF

ARBORS ON ROSEMEADE

◆

THIS 236 UNIT LUXURY GARDEN APARTMENT
COMPLEX IS LOCATED IN DALLAS, TEXAS

◆

AMLI IS CONTINUING TO ACQUIRE APARTMENT
PROPERTIES FOR VARIOUS INSTITUTIONAL PARTNERSHIPS

AMLI REALTY CO.
125 South Wacker Drive
Chicago, Illinois 60606
(312) 443-1477

Public Employees' Retirement Fund of Indiana

	($ millions)
Total assets*	3,104
Defined benefit	2,464
Total defined contribution	640
Employer DB contributions	175
Benefit payments	120
Employer DC contributions	0
*as of June 30, 1990	
Defined benefit asset mix:	
Fixed income	92%
Cash equivalents	8%
Defined contribution asset mix:	
Fixed income	92%
Cash equivalents	8%

INDIANAPOLIS — As of June 30, The Public Employees' Retirement Fund of Indiana's total employee benefit assets increased 13.4% to $3.104 billion from $2.737 billion a year earlier.

Fixed-income managers: Domestic — Bank One Indianapolis; INB National Bank; Lehman-Ark; and Prime Capital Management.

The investment consultant is Performance Analytics.

Phillip N. Smith, director, oversees investment management of the fund.

The *P&I*/InterSec 300 will be published Aug. 5.

INSURANCE
INVESTMENT ADVISERS
ERISA PLANS • MUTUAL FUNDS

- Errors & Omissions
- Directors & Officers
- ERISA & Fidelity Bonds
- Pension Trustees Liability

1-800-752-0200

Theo[illegible]re Li[illegible] Insurance, Inc.
FINANCIAL INSURANCE

Top 200 defined benefit funds with assets in non-investment grade bonds

Fund	($ millions)
J.C. Penney	535
Textron	362
Allied-Signal	280
Pacific Telesis	250
Illinois State Board	160
Connecticut Trust Funds	150
Monsanto	127
Los Angeles Fire & Police	126
General Electric	100
State of Michigan	88
Owens-Illinois	77
Du Pont	71
San Francisco City/County	67
United Airlines	60
USX	60
Westinghouse Electric	55
Eastern Air Lines	53
Atlantic Richfield	33
Iowa Public Employees	30
Consolidated Natural Gas	19
Teamsters, Central States	18
Total	2,721

Indiana State Teachers' Retirement Fund

	($ millions)
Total assets	2,000
Defined contribution	2,000
Employer DC contributions	163
Defined contribution asset mix:	
Fixed-income	100%

INDIANAPOLIS — As of Sept. 30, the Indiana State Teachers' Retirement Fund's total employee benefit assets increased 17.6% to $2 billion from $1.7 billion a year earlier. All assets are in an annuity purchase plan.

Fixed-income managers: Domestic — Alliance; Bank One; Bank of New York; Baxter Capital; Indiana National Bank; Merchants Investment Counseling; and Todd Investment.

The master custodian is Indiana National Bank.

The key person overseeing the investment management of the fund is Robert Newland, investment officer.

Inland Steel Industries Inc.

	($ millions)
Total assets	1,848
Defined benefit	1,453
Total defined contribution	395
Employer DB contributions	0
Benefit payments	120
Employer DC contributions	11
Hedging devices used:	
Stock options	
Bond options	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	46.5%
Fixed income	30%
Cash equivalents	8.8%
Real estate equity	10%
GICs/BICs	4.7%
Defined contribution asset mix:	
Company stock	8%
Other stock	4%
GICs/BICs	88%

CHICAGO — As of Sept. 30, Inland Steel Industries Inc.'s total employee benefit assets decreased 9.5% to $1.848 billion from $2.041 billion a year earlier. Defined benefit assets decreased 12.2% during the same period, to $1.453 billion from $1.655 billion. Defined contribution assets — a combined 401(k) and thrift/savings plan — increased 2.3% to $395 million from $386 million.

Equity managers: Domestic — Sanford Bernstein; Chancellor; Dalton, Greiner; INVESCO; Oppenheimer; Putnam Advisory; State Street Research; and Waddell & Reed.

International — Baring International; Brinson Partners; and Putnam International.

Fixed-income managers: Domestic — Lincoln.

Real estate managers: Cabot; Equitable; Grubb & Ellis; JMB; MIG; Prudential; and Zell/Merrill Lynch.

The master trustee is Northern Trust; the investment consultant is DeMarche.

Key personnel overseeing the investment management of the fund are Richard Schutter, director-pension investment and administration; Lily May, manager-pension investment and administration; and Jay Dittus, treasurer.

International Paper Co.

	($ millions)
Total assets	2,673
Defined benefit	1,967
Defined contribution	706
Employer DB contribution	na
Benefit payments	na
Employer DC contributions	na

PURCHASE, N.Y. — As of Sept. 30, International Paper Co.'s total employee benefit assets decreased 1.3% to $2.673 billion from $2.709 billion July 31, 1989. Defined benefit assets decreased 6.3% during the same period, to $1.967 billion from $2.1 billion. Defined contribution assets increased 15.9%, to $706 million from $609 million.

Myra R. Drucker, director-trust investments, oversees investment management of the fund.

Iowa Public Employees Retirement System

	($ millions)
Total assets	4,916
Defined benefit	4,916
Employer DB contributions	148
Benefit payments	168
Internally managed assets	34
Hedging devices used:	
Stock index futures	
Defined benefit asset mix:	
Stocks	31%
Fixed income	46%
Cash equivalents	1%
Real estate equity	12%
Other	10%

DES MOINES, Iowa — As of Sept. 30, the Iowa Public Employees Retirement System's total employee benefit assets increased 0.3% to $4.916 billion from $4.9 billion. All assets are defined benefit.

Equity managers: Domestic — Capital Guardian; Mellon; RCM; and Wellington.

International — Hill Samuel; Nomura; Philippe; and Schroder.

Fixed-income managers: Domestic — Boston Co.; Loomis, Sayles; Mellon; Miller, Anderson & Sherrerd; and J.P. Morgan.

International — Loomis, Sayles; Miller, Anderson & Sherrerd; and J.P. Morgan.

Real estate managers: AEW; Copley; Heitman; and JMB.

Other managers: Allsop; Cable & Howse; Gibbons, Green; Golda, Thoma; KKR; Interven; Interwest; Invest America; LTOS; Matrix; Menlo; MW; Prime; Steinberg Lyman; Summit; TCW; WCAS.

The master custodian and global custodian is Boston Safe Deposit; the investment consultant is Wilshire.

Key personnel overseeing the investment management of the fund are Dennis Jacobs, deputy administrator, and Larry Thompson, investment officer.

ITT Corp.

	($ millions)
Total assets	2,990
Defined benefit	1,449
Total defined contribution	1,541
Thrift or savings	842
ESOP	699
Employer DB contributions	na
Benefit payments	na
Employer DC contributions	na
Defined benefit asset mix:	
Stocks	58%
Fixed income	26%
Cash equivalents	8%
Real estate equity	8%
Defined contribution asset mix:	
Company stock	25%
Other stock	11%
Cash equivalents	1%
GICs/BICs	60%
Loans	3%

NEW YORK — As of Sept. 30, ITT Corp.'s total employee benefit assets increased 19.7% to $2.99 billion from $2.497 billion a year earlier. Defined benefit assets decreased 10.3% during the same period, to $1.449 billion from $1.615 billion. Defined contribution assets increased 74.7%, to $1.541 billion from $882 million.

Equity managers: Domestic — Alliance; American Fund; Barrow, Hanley, Mewhinney & Strauss; First Manhattan; GAMCO; Jennison; Northern Investment Management; State Street Research; and Verus Capital.

International — Alliance; Capital Guardian; and Lazard Freres.

Fixed-income managers: Domestic — Alliance; J.P. Morgan; and State Street Research.

International — Morgan International and WorldInvest.

Real estate managers: Coldwell Banker; Corporate Property Investors; Equitable; Metropolitan; and RREEF.

Other managers: Blackstone; Alex. Brown; Butler Capital; Corporate Partners; Harry Gray; Kohlberg & Co.; and KKR.

The master trustee is Northern Trust; the global custodian is Northern Trust-London.

Key personnel overseeing the investment management of the fund are Edwin J. Ehrlich, director-pension fund trusts; and Eileen C. Leahy, manager-pension fund trusts.

J

Johnson & Johnson

	($ millions)
Total assets	1,650
Defined benefit	1,100
401(k)	550
Employer DB contributions	0
Benefit payments	29
Employer DC contributions	30
Internally managed assets:	
Total DB	55
Defined benefit asset mix:	
Stocks	67%
Fixed income	26.7%
Real estate equity	5%
Venture capital	1.3%
Defined contribution asset mix:	
Other stock	27%
GICs/BICs	73%

NEW BRUNSWICK, N.J. — As of Sept. 30, Johnson & Johnson's total employee benefit assets increased 10% to $1.65 billion from $1.5 billion a year earlier. Defined benefit assets decreased 8.3% during the same period, to $1.1 billion from $1.2 billion. Defined contribution assets increased 83% to $550 million from $300 million.

The master trustee and global custodian in Bankers Trust.

Key personnel overseeing the investment management of the fund are H. Scott Snead, director of pensions, and William Raun, assistant director of pensions.

K

K mart Corp.

	($ millions)
Total assets	1,643
Defined benefit	984
Total defined contribution	659
Employer DB contributions	0
Benefit payments	35
Employer DC contributions	na
Internally managed assets:	
Total DB	351
Hedging devices used:	
Stock options	
Stock index futures	
Defined benefit asset mix:	
Stocks	57.4%
Fixed income	31.3%
Cash equivalents	0.5%
Real estate equity	4.3%
GICs/BICs	4.4%
Annuities	2.1%

We are pleased to announce that

The Tokio Marine and Fire Insurance Co., LTD.

has acquired an interest in

Financial Security Assurance Holdings Ltd.

resulting in a long-term cooperation agreement
for transacting financial guaranty insurance business
in Japan and the United States.

December 1990

FINANCIAL
SECURITY
ASSURANCE®

A US WEST COMPANY

Defined contribution asset mix:	
Company stock	31.1%
Other stock	8.6%
GICs/BICs	60.3%

TROY, Mich. — As of Sept. 30, K mart Corp.'s total employee benefit assets decreased 7.4% to $1.643 billion from $1.775 billion a year earlier. Defined benefit assets decreased 9.2% during the same period, to $984 million from $1.084 billion. Defined contribution assets, in a savings/401(k) hybrid plan, decreased 4.6%, to $659 million from $691 million.

Equity managers: Domestic — Alliance; Avatar; Capital Guardian; DFA; Greaves Capital; NCM Capital; and Westridge.

Real estate managers: Equitec and JMB.

GIC manager: Equitable.

Annuity manager: John Hancock.

The master trustee is NBD Bank.

Key personnel overseeing the investment management of the fund are William F. Camp, manager-pension and savings plan investments; Jon Hartman, assistant treasurer; and John Steinbach, portfolio manager.

Kansas Public Employees Retirement System

	($ millions)
Total assets	3,751
Defined benefit	3,751
Employer DB contributions	101
Benefit payments	189
Internally managed assets	39
Hedging devices used:	
Stock options	
Bond options	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	31%
Fixed income	32%
Cash equivalents	3%
Real estate equity	13%
International	12%
Direct placements	9%

TOPEKA, Kan. — As of Sept. 30, the Kansas Public Employees Retirement System's total employee benefit assets increased 1.6% to $3.751 billion from $3.692 billion All assets are defined benefit.

Equity managers: Domestic — Delaware; Loomis, Sayles; Market Research; Pilgrim, Baxter; and Provident.

International — Alliance and Nomura.

Fixed-income managers: Domestic — Loomis, Sayles; Peters, Gamm; and PIMCO.

International — Julius Baer.

Real estate managers: Lehndorff & Babson and O'Connor.

Other managers: Bankers Trust; Marine Midland; Payden & Rygel; and Reimer & Koger.

The master custodian is Commerce Bank & Trust; the global custodian is Bankers Trust; the investment consultant is Callan.

Key personnel overseeing the investment management of the fund are Tom Hamill, chairman, and Marshall Crowther, executive secretary.

Kentucky Retirement Systems

	($ millions)
Total assets	3,300
Defined benefit	3,300
Employer DB contributions	154
Benefit payments	152
Internally managed assets	1,501
Defined benefit asset mix:	
Stocks	45%
Fixed income	24%
Cash equivalents	19%
Real estate equity	5%
Mortgages	7%

FRANKFORT, Ky. — As of Sept. 30, the Kentucky Retirement Systems' total employee benefit assets increased 3.1% to $3.3 billion from $3.2 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Investment Advisers and Investment Counselors of Maryland.

Fixed-income managers: Domestic — T. Rowe Price and National Asset Management.

Real estate managers: Heitman; TCW Realty; and Yarmouth.

The master custodian is Farmers Bank & Capital Trust; the investment consultant is Mercer.

The key person overseeing the investment management of the fund is Marlene O. Castle, director of investment.

Kentucky Teachers' Retirement System

	($ millions)
Total assets	3,678
Defined benefit	3,678
Employer DB contributions	193
Benefit payments	204
Internally managed assets	611
Defined benefit asset mix:	
Stocks	24%
Fixed income	59%
Cash equivalents	13%
Real estate equity	1%
Mortgages	3%

FRANKFORT, Ky. — As of Sept. 30, the Kentucky Teachers' Retirement System's total employee benefit assets increased 6.3% to $3.678 billion from $3.461 billion a year earlier. All assets are in defined benefit plans.

Equity managers: Domestic — INVESCO and Todd Investment.

Fixed-income managers: Domestic — National Asset and Todd Investment.

The master custodian is Farmers Bank & Capital Trust.

Key personnel overseeing the investment management of the fund are Pat N. Miller, executive secretary; Stuart A. Reagan, deputy executive secretary; and Paul L. Yancey, investment analyst.

Pensions & Investments' annual directory of real estate investment managers will run Sept. 16.

L

Eli Lilly and Co.

	($ millions)
Total assets*	2,670
Defined benefit	1,402
401(k)	1,268
Employer DB contributions	42
Benefit payments	59
Employer DC contributions	34
as of June 30, 1990	
Internally managed assets:	
Total DC	355
Defined benefit asset mix:	
Stocks	67%
Fixed income	19%
Cash equivalents	9%
Real estate equity	5%
Defined contribution asset mix:	
Company stock	63%
Other stock	8%
Fixed income	1%
GICs/BICs	28%

INDIANAPOLIS — As of June 30, Eli Lilly and Co.'s total employee benefit assets increased 9.8% to $2.67 billion from $2.432 billion a year earlier. Defined benefit assets decreased 0.6% during the same period, to $1.402 billion from $1.41 billion. Defined contribution assets increased 24.1%, to $1.268 billion from $1.022 billion.

Equity managers: Domestic — Ardsley; Capital Guardian; Mellon Capital; Nikko; Reams; and United Capital.

Real estate managers: GE and JMB.

The master trustee is Northern Trust.

Key personnel overseeing the investment management of the fund are Frederick W. Ruebeck, director-investments administration; Karen L. Hardwick, adviser-pension plan; and Michael W. Neal, adviser-savings plan.

Top 200 funds with defined contribution assets in international investments
($ millions)

Fund	Total	Equities	Bonds	Other
TIAA-CREF	4,242	4,000	242	0
Bechtel Power	361	215	146	0
American Stores	222	197	0	25
American Airlines	110	110	0	0
Trans World Airlines	108	108	0	0
Sears, Roebuck	93	93	0	0
Halliburton	82	80	2	0
Southern Baptist	70	41	29	0
Motorola	61	61	0	0
Evangelical Lutheran	44	44	0	0
Citibank	36	36	0	0
Xerox	23	23	0	0
United Methodist Church	9	9	0	0
Procter & Gamble	5	5	0	0
Total	5,466	5,022	419	25

Lockheed Corp.

	($ millions)
Total assets*	7,963
Defined benefit	5,294
Thrift or savings	2,669
Employer DB contributions	na
Benefit payments	na
Employer DC contributions	na
P&I estimate	
Defined benefit asset mix:	
Stocks	53%
Fixed income	27%
Cash equivalents	11%
Real estate equity	6%
Other	3%

CALABASAS, Calif. — As of Sept. 30, *Pensions & Investments* estimates Lockheed Corp.'s total employee benefit assets at $7.963 billion. That estimate is based on the $8.581 billion the company said it had as of Dec. 31, 1989 and represents a 10.8% decrease from an estimated $8.926 billion a year earlier. Defined benefits assets declined 15.3% during the same period to an estimated $5.294 billion, from an estimated $6.247 billion. Defined contribution assets decreased 0.4% to an estimated $2.669 billion from an estimated $2.679 billion.

Managers: Alliance; Anhalt/O'Connell; Bankers Trust; Batterymarch; Capital Guardian; Chancellor; Chase Investors; Delaware Investment; DSI; First Interstate, Washington; Hotchkis and Wiley; Investment Research; Karsten; Lombard Odier; Mellon Bank; Mitchell Hutchins; J.P. Morgan; Pacific Financial; Payden & Rygel; RREEF; Fayez Sarofim; SBC; Security Pacific; Smith Barney; TCW Asset; Western Asset; Westwood; and Wright Investors.

The master trustee and global custodian is Bankers Trust; the investment consultant is BT Consulting.

Key personnel overseeing the investment management of the fund are George C. Weintz, investment coun-

Top 200 funds with defined benefit assets in international investments
($ millions)

Fund	Total	Equities	Bonds	Other
California Employees	5,700	3,700	2,000	0
United Nations	4,568	1,792	2,169	607
GTE	1,916	1,322	594	0
AT&T	1,879	1,879	0	0
General Electric	1,638	1,592	46	0
Pacific Telesis	1,601	1,601	0	0
Connecticut Trust Funds	1,156	753	403	0
NYNEX	1,126	943	183	0
Colorado Employees	1,109	1,109	0	0
Oregon Employes	1,100	1,100	0	0
Ameritech	1,085	1,060	25	0
Los Angeles County	1,041	1,041	0	0
Illinois Teachers	1,033	573	460	0
New York City	1,023	647	376	0
Wisconsin State Board	1,012	540	472	0
United Technologies	820	710	110	0
World Bank	776	457	319	0
Prudential Insurance	705	386	319	0
Tennessee Consolidated	685	410	275	0
Hawaii Employees	679	557	122	0
San Francisco City/County	678	247	431	0
Atlantic Richfield	575	523	52	0
Illinois Municipal	505	384	121	0
Arizona State	457	457	0	0
Kansas Employees	422	334	88	0
Caterpillar	402	402	0	0
Philip Morris	385	385	0	0
Texas Teachers	379	379	0	0
Pacific Gas & Electric	365	365	0	0
Owens-Illinois	357	298	59	0
Delta Air Lines	350	350	0	0
Du Pont	343	309	34	0
Exxon	341	250	9	82
Illinois State Universities	332	332	0	0
USX	330	190	140	0
Alaska State	321	321	0	0
Pennsylvania School	315	75	240	0
Southwestern Bell	310	310	0	0
TRW	297	182	115	0
ITT	289	189	100	0
Presbyterian Church	265	200	65	0
Allied-Signal	258	258	0	0
North Carolina	258	258	0	0
Illinois State Board	248	218	30	0
Sears, Roebuck	240	240	0	0
Xerox	231	231	0	0
Monsanto	222	222	0	0
Pennsylvania Employes	222	197	25	0
Chevron	219	105	0	114
GenCorp	207	100	107	0
University of California	206	35	171	0
S. New England Telephone	203	203	0	0
American Airlines	200	150	50	0
S. California Edison	199	174	25	0
Honeywell	192	114	78	0
Amoco	185	185	0	0
Travelers	183	157	26	0
Unisys	181	181	0	0
Hercules	171	171	0	0
BP America	144	144	0	0
Westinghouse Electric	140	140	0	0
Minnesota Mining & Mfg.	139	117	22	0
Inland Steel	134	134	0	0
Chicago Police	130	91	39	0
Iowa Employees	130	122	8	0
Nat'l Rural Electric Co-op	126	126	0	0
CIGNA	122	91	31	0
ALCOA	116	56	60	0
J.C. Penney	108	108	0	0
Chicago Municipal	101	93	8	0
Delaware State	100	73	27	0
United Airlines	100	100	0	0
Maine State	93	93	0	0
Southern Baptist	90	42	48	0
Nevada	88	88	0	0
Chrysler	87	87	0	0
Virginia Retirement	87	87	0	0
FPL Group	83	83	0	0
PPG Industries	79	79	0	0
Aetna	77	77	0	0
Deere	75	75	0	0
New York State & Local	73	73	0	0
Los Angeles Fire & Police	65	65	0	0
Commonwealth Edison	64	31	33	0
Idaho Employees	62	62	0	0
Armco	61	61	0	0
Mississippi Employees	61	61	0	0
Tenneco	59	59	0	0
Bakery & Confectionery	55	55	0	0
Rhode Island	41	41	0	0
Equitable Life	37	37	0	0
Episcopal Church	36	0	0	36
Los Angeles City	35	35	0	0
Mobil Oil	35	35	0	0
Motorola	31	31	0	0
Eastern Air Lines	30	30	0	0
New York Life	27	21	0	6
Bethlehem Steel	25	25	0	0
Florida State Board	17	17	0	0
Hospital/Health Care	15	15	0	0
General Dynamics	14	14	0	0
Textron	12	0	0	12
United Methodist Church	10	10	0	0
American Stores	4	3	0	1
Total	45,713	34,740	10,115	858

sel, and Sheldon J. Lieberman, trust fund performance manager.

Los Angeles City Employees' Retirement System

	($ millions)
Total assets	2,620
Defined benefit	2,620
Employer DB contributions	146
Benefit payments	156
Internally managed assets	300
Defined benefit asset mix:	
Stocks	29%
Fixed income	54%
Cash equivalents	15%
Real estate equity	2%

LOS ANGELES — As of Sept. 30, the Los Angeles City Employees' Retirement System's total employee benefit assets increased [illegible]% to $2.62 billion from $2.599 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Ariel; Bankers Trust; Loomis, Sayles; and Security Pacific.

International — Axe-Core.

Fixed-income managers: Domestic — W.R. Lazard; Lincoln Capital; and Loomis, Sayles.

Real estate managers: AEW; LaSalle; Lehndorff & Babson; and O'Connor Group.

Other manager. Bailard, Biehl and Kaiser.

The master custodian is Bank of New York; the investment consultant is SEI.

Key personnel overseeing the investment management of the fund are Jerry F. Bardwell, manager-secretary; Oscar Peters, assistant manager; and Daniel P. Gallagher, investment officer.

Los Angeles County Employees' Retirement Association

	($ millions)
Total assets*	10,362
Defined benefit	10,362
Employer DB contributions	380
Benefit payments	442

*as of June 30, 1990

Hedging devices used:
Stock index futures
Fixed-income futures

Defined benefit asset mix:	
Stocks	49%
Fixed income	42%
Cash equivalents	2%
Real estate equity	4%
Mortgages	1%
Venture capital	2%

LOS ANGELES — As of June 30, the Los Angeles County Employees' Retirement Association's total employee benefit assets increased 10.7% to $10.362 billion from $9.359 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Capital Guardian; INVESCO; Loomis, Sayles; Morgan Stanley Asset; Pilgrim, Baxter, Grieg; Putnam Advisory; Security Pacific Investment; Stein Roe; TSA Capital; and Weiss, Peck & Greer.

International — Brown Brothers Harriman; Capital Guardian; Chase Investors; Daiwa; Morgan Grenfell; and Warburg.

Fixed-income managers: Bradford & Marzec; Brown Brothers; Capital Guardian; Criterion; MacKay-Shields; Massachusetts Financial; and J.P. Morgan.

Real estate managers: Trammel Crow; Equitable; Goldman, Sachs; Heitman; JMB; Lehndorff & Babson; Prudential; Public Storage; RREEF; Sentinel; Shurgard; and TCW Realty.

Cash manager: Discount Corp. of New York.

Venture capital managers: Copley Venture; GKH Partners; Prudential Venture Capital; Syndicated Communications Partners II; TA Communications; and E.M. Warburg Pincus.

The master custodian is Security Pacific; the global custodian is Chase Manhattan; the investment consultants are Callan and Frank Russell.

Key personnel overseeing the investment management of the fund are Charles F. Conrad, retirement administrator, and Marsha Richter; assistant retirement administrator.

Los Angeles Fire & Police Pension System

	($ millions)
Total assets	3,459
Defined benefit	3,459
Employer DB contributions	346
Benefit payments	250
Internally managed assets	138
Defined benefit asset mix:	
Stocks	58.1%
Fixed income	32%
Cash equivalents	4%
Real estate equity	5.9%

LOS ANGELES — As of Sept. 30, the Los Angeles Fire & Police Pension System's total employee benefit assets decreased 0.5% to $3.459 billion from $3.477 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Alliance; Amerindo; Balch Hardy; BMI;

T. Rowe Price
Guaranteed Asset Advisers, Inc.

Specialists in Managing
Guaranteed Investment Contracts

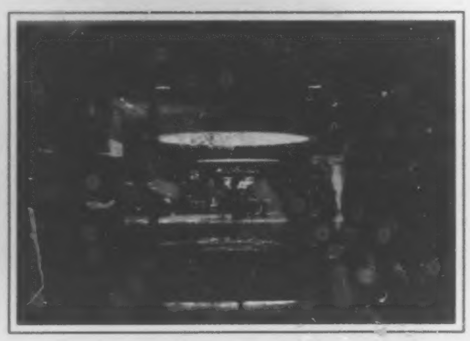
Contact: Keith Lewis (301) 547-2332

T. Rowe Price
100 E. Pratt Street, Baltimore, MD 21202

T.RowePrice

LaSalle Advisors Limited

Real Estate Investment Advisor to
Qualified Tax-exempt Institutions



LaSalle Advisors Limited is a real estate investment advisor serving
major tax-exempt institutions through a series of
commingled funds and individually managed accounts.

LA SALLE ADVISORS
Limited
Real Estate Advisory Services
Chicago, Illinois 60603

Call Kenneth M. Campia, President at (312) 782-5800

Frontier; Husic; Loomis, Sayles; MCQ; Oppenheimer; Security Pacific; and Target.

International — Globe Finlay; Nomura; and Oechsle.

Fixed-income managers: Domestic — Boston Co.; Cypress; Magten; and Security Pacific.

Real estate managers: Boston Co.; Equitable; JMB; Prudential; and Sentinel.

The master custodian is Bankers Trust; the investment consultant is Wyatt.

Key personnel overseeing the investment management of the fund are Gary Mattingly, general manager; Allan E. Moore, assistant general manager; and Dennis R. Sugi[illegible] chief investment officer.

Los Angeles Department of Water & Power Employees' Retirement Plan

	($ millions)
Total assets	1,850
Defined benefit	1,850
Employer DB contributions	121
Benefit payments	120
Internally managed assets	162
Hedging devices used:	
Stock options	
Defined benefit asset mix:	
Stocks	36%
Fixed income	56%
Cash equivalents	8%

LOS ANGELES — As of Sept. 30, the Los Angeles Department of Water & Power Employees' Retirement Plan's total employee benefit assets increased 2.8% to $1.85 billion from $1.8 billion as of June 30, 1989. All assets are defined benefit.

Equity managers: Domestic — Boston Co.; Merus Capital; and TCW Asset.

Fixed-income managers: Domestic — Boston Co.; Merus Capital; and TCW Asset.

The master trustee is Security Pacific; the investment consultant is SEI.

Key personnel overseeing the investment management of the fund are Richard W. Goss, retirement plan manager, and Kathleen L. Thornton, assistant retirement plan manager.

Louisiana State Employees' Retirement System

	($ millions)
Total assets	2,234
Defined benefit	2,234
Employer DB contributions	94
Benefit payments	234
Internally managed assets	518
Defined benefit asset mix:	
Stocks	30%
Fixed income	66.5%
Cash equivalents	1%
Real estate equity	2.5%

BATON ROUGE, La. — As of Sept. 30, the Louisiana State Employees' Retirement System's total employee benefit assets decreased 0.7% to $2.234 billion from $2.25 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Amerindo; Boston Co.; Eagle; Merus; and Schaenen Wood.

Fixed-income managers: Domestic — Denver Investment; Duff & Phelps; INVESCO; and Mitchell Hutchins.

Real estate managers: Equitable; JMB; Metropolitan Life; and PSI.

The master custodian is Bank of New York for bonds and Custodial Trust for equities; the investment consultant is Callan.

Key personnel overseeing the investment management of the fund are Vernon Strickland, chief investment officer; Nick Montagnino, investment officer II; and Calla McManus, investment officer II.

Teachers' Retirement System of Louisiana

	($ millions)
Total assets	3,457
Defined benefit	3,457
Employer DB contributions	349
Benefit payments	69
Internally managed assets	503
Defined benefit asset mix:	
Stocks	35%
Fixed income	55%
Cash equivalents	10%

BATON ROUGE, La. — As of Sept. 30, the Teachers' Retirement System of Louisiana's total employee benefit assets increased 5.9% to $3.457 billion from $3.265 billion as of June 30, 1989. All assets are defined benefit.

Equity managers: Domestic — Boston Co.; Eagle; Harris, Bretall; INVESCO; Palley-Needelman; Smith Barney; and Sun Bank.

Fixed-income managers: Domestic — Boatmen's; Criterion; Hibernia; Kemper; Morgan Stanley; and Scudder, Stevens & Clark.

The master custodian is City National Bank of Baton Rouge; the investment consultant is SEI.

Key personnel overseeing the investment management of the fund are James P. Hadley, director, and Jennifer Netterville, investment officer.

M

Maine State Retirement System

	($ millions)
Total assets	1,837
Defined benefit	1,837
Employer DB contributions	218
Benefit payments	171
Defined benefit asset mix:	
Stocks	49%
Fixed income	35%
Cash equivalents	11%
Real estate equity	3%
Other	2%

AUGUSTA, Maine — As of Sept. 30, the Maine State Retirement System's total employee benefit assets increased 2.1% to $1.837 billion from $1.8 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Alliance; Columbus Circle; Dalton, Greiner, Hartman, Maher; Gouws Capital; Lehman Ark; and PanAgora.

International — Bankers Trust and State Street Bank.

Fixed-income managers: Domestic — Alliance; Boston Safe; Morgan Guaranty; PanAgora; and Putnam.

Real estate managers: PCA.

Other managers: First Reserve Energy.

The master custodian is Boston Safe Deposit; the global custodians are Bankers Trust and State Street; the investment consultant is Wilshire.

Key personnel overseeing the investment management of the fund are Claude Perrier, executive director, and William Ross, investment accounting coordinator.

Martin Marietta Corp.

	($ millions)
Total assets	3,300
Defined benefit	2,248
Total defined contribution	1,052
Employer DB contributions	108
Benefit payments	98
Employer DC contributions	16

Internally managed assets:

Top 200 funds with assets in real estate equity

Defined benefit

Fund	($ millions)
California Employees	5,100
AT&T	4,279
General Electric	2,308
Ohio State Teachers	2,200
California State Teachers	1,524
Ameritech	1,369
Connecticut Trust Funds	1,303
State of Michigan	1,270
Washington State Board	1,224
NYNEX	1,207
New York State & Local	970
Ohio Public Employees	958
Illinois Teachers	946
Ford Motor	900
Pennsylvania Employes	869
Florida State Board	868
Pacific Telesis	835
Teamsters, Western	788
New York State Teachers	743
Wisconsin State Board	692
Southwestern Bell	654
Iowa Employees	594
Pennsylvania School	578
Prudential Insurance	552
Colorado Employees	542
Oregon Employes	537
Westinghouse Electric	509
Minnesota State Board	485
Illinois State Universities	469
Kansas Employees	467
Illinois Municipal	458
Virginia Retirement	433
United Technologies	420
Allied-Signal	396
Los Angeles County	388
Chevron	387
Metropolitan Life	385
Exxon	356
Hawaii Employees	354
Ohio School Employees	334
Unisys	334
Illinois State Board	320
Utah State	316
Pacific Gas & Electric	311
Nevada Employees	294
Monsanto	283
Boilermaker-Blacksmith	255
Nat'l Electrical Contractors	255
Maryland State	251
Alaska State	247
United Nations	240
Xerox	238
Ohio Police & Firemen	236
USX	230
Presbyterian Church	225
Caterpillar	217
San Francisco City/County	209
North Carolina	208
Honeywell	196
Atlantic Richfield	194
Textron	189
Minnesota Mining & Mfg.	180
World Bank	178
Owens-Illinois	171
Idaho Employees	156
Chicago Police	155
UMWA	155
Kentucky Retirement	150
United Airlines	150
Inland Steel	146
Hercules	139
Chrysler	136
Eastern Air Lines	136
ITT	124
GTE	119
Citibank	117
Grumman	117
Sears, Roebuck	113
BP America	111
Amoco	110
Philip Morris	110
Los Angeles Fire & Police	107
J.C. Penney	106
S. New England Telephone	106
Delta Air Lines	105
S. California UFCW	101
Chicago Municipal	100
Rhode Island	98
FPL Group	97
Aetna	96
CIGNA	91
Equitable Life	84
Du Pont	79
Hospital/Health Care	77
United Methodist Church	74
Deere	72
Eli Lilly	70
S. California Edison	69
Travelers	65
ALCOA	60
Union Carbide	60
Operating Engineers	59
Los Angeles City	58
Louisiana Employees	55
Johnson & Johnson	54
Maine State	53
Anheuser-Busch	51
GenCorp	45
Georgia-Pacific	43
K mart	42
Kentucky Teachers	38
Alabama Retirement	35
Phillips Petroleum	30
New York Life	25
Trans World Airlines	21
Southern Baptist	19
American Electric Power	16
Delaware State	13
Raytheon	12
United Parcel Service	12
Teamsters, Central States	11
New Mexico Employees	5
Armco	2
General Dynamics	2
Georgia Teachers	2
Total	[illegible]

Defined contribution

Fund	($ millions)
TIAA-CREF	4,600
Trans World Airlines	93
Bechtel Power	83
American Stores	77
United Methodist Church	61
United Parcel Service	35
Halliburton	24
Xerox	24
Evangelical Lutheran	7
Equitable Life	4
Total	[illegible]

Investment Advisors...

to employee benefit plans, foundations, endowments and substantial individuals.

Our basic investment philosophy — the prudent investment of assets in undervalued securities and special situations — was established a half century ago. This approach has preserved and appreciated capital over many market cycles.

David J. Greene and Company
Registered Investment Advisors
[illegible]

Trust Company of the West

and its affiliate

TCW Capital

announces the formation of

TCW SPECIAL
PLACEMENTS FUND III

a California Limited Partnership
with funding of

$290,000,000

The Fund will provide financing to
small and medium-sized businesses for
acquisitions, expansion,
management buyouts, special situations,
recapitalizations and other corporate purposes

Trust Company of the West
Los Angeles

Total DB	967
Defined benefit asset mix:	
Stocks	20%
Fixed income	30%
Cash equivalents	50%
Defined contribution asset mix:	
Company stock	12%
Other stock	20%
Cash equivalents	52%
GICs/BICs	16%

BETHESDA, Md. — As of Sept. 30, Martin Marietta Corp.'s total employee benefit assets increased 3.1% to $3.3 billion from $3.201 billion a year earlier. Defined benefit assets increased 2.9% during the same period, to $2.248 billion from $2.184 billion. Defined contribution assets, which are in a profit-sharing plan with a 401(k) feature, increased 3.4%, to $1.052 billion from $1.017 billion.

Equity managers: Domestic — Breau Capital; Capital Guardian; Invista Capital; Pioneering Management; State Street Research; and Robert E. Torray.

Fixed-income managers: Domestic — T. Rowe Price.

The master trustee and global custodian is Bankers Trust; the investment consultant is EAI/Investment Management Controls.

Key personnel overseeing the investment management of the fund are Wayne H. Shaner, assistant treasurer-pension investments; Shawn M. Hendon, director-pension investments; and Wendy J. Thomson, administrator-pension investments.

Maryland State Retirement and Pension Systems

	($ millions)
Total assets	10,761
Defined benefit	10,761
Employer DB contributions	600
Benefit payments	54
Internally managed assets	7,457
Hedging devices used:	
Stock index futures	
Defined benefit asset mix:	
Stocks	28.5%
Fixed income	66.4%
Cash equivalents	2.7%
Real estate equity	2.3%
Mortgages	0.1%

BALTIMORE — As of Sept. 30, the Maryland State Retirement and Pension Systems' total employee benefit assets decreased 2.7% to $10.761 billion from $11.065 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Bankers Trust; Capital Guardian; DFA; Hagler, Mastrovita & Hewitt; Investment Counselors, Maryland; Scudder, Stevens & Clark; and Wellington Trust.

Fixed-income managers: Domestic — Investment Counselors, Maryland; Mercantile Safe; PIMCO; Progress Investment; and Standish, Ayer & Wood.

Real estate managers: CIGNA; Copley; J.P. Morgan; and Sentinel.

Key personnel overseeing the investment management of the fund are Howard J. France, chief investment officer; Lawrence J. Bach, director-passive management; Arthur M. Lynch Jr., director-actively managed assets; and Victoria Willard, director-cash management.

Massachusetts Pension Reserves Investment Management Board

	($ millions)
Total assets	2,700
Internally managed assets	20
Asset mix:	
Stocks	53.8%
Fixed income	25.9%
Cash equivalents	1%
Real estate equity	14.4%
Global	1.7%
Other	3.2%

BOSTON — As of Sept. 30, the Massachusetts Pension Reserves Investment Management Board's total assets decreased 3.3% to $2.7 billion from $2.791 billion a year earlier.

Equity managers: Domestic — Alliance; Bear Stearns; Lazard Freres; PanAgora; Trinity; and United States Trust.

International — Acadian; Baring International; Capital Guardian; Daiwa; Emerging Markets Management; GE Investments; HD International; Nomura; Oechsle; Scudder, Stevens & Clark; and State Street Bank.

Global — TCW Global.

Fixed-income managers: Domestic — AEW/Worcester; Equitable Capital; Fidelity Management; W.R. Huff; Lehman Ark; One Federal Asset; PIMCO; Putnam Advisory; Standish, Ayer & Wood; and TCW.

International — Baring International and N.M. Rothschild International.

Real estate managers: Domestic — Advent Realty; AEW; Boston Financial Group; Copley; FNB Boston; John Hancock; Heitman; INVESCO; JMB; Massachusetts Mutual; and TCW.

International — JMB.

Venture capital: Domestic — Commonwealth Bioventures; Davis Venture Partners; Golder, Thoma & Cressey; John Hancock; Morgan Holland; M.T.D.C.; S.C.V. Partners; TA Associates; Venture Capital of New England; and Vista.

International — Advent International; APA Ventures; and John Hancock International.

Special equity managers: Domestic — Boston Ventures; Forstmann, Little; INVEXCO; Joseph, Littlejohn & Levy; KKR; Thomas H. Lee; Smith Offshore; and Weintraub.

International — Advent; MMG Patricoff; and Schroder UK.

The master custodian and global custodian is State Street Bank; the investment consultant is Wilshire.

Key personnel overseeing the investment management of the fund are Paul F. Quirk, executive director; Elizabeth A. McLaughlin, director of finances; and Philip D. Kett, chief investment officer.

P&I's annual Managers Scoreboard will be published in the Feb. 4 issue.

Commonwealth of Massachusetts Teachers' and Employees' Pension Fund

	($ millions)
Total assets*	6,650
Defined benefit	6,650
Employer DB contributions	1,121
Benefit payments	na

**from Money Market Directory*

BOSTON — As of June 30, the Commonwealth of Massachusetts Teachers' and Employees' Pension Fund's total employee benefit assets were $6.65 billion, the same as the previous year, according to the Money Market Directory. All assets are defined benefit.

McDonnell Douglas Corp.

	($ millions)
Total assets*	7,023
Defined benefit	5,430
Total defined contribution	1,593
Employer DB contributions	na
Benefit payments	na
Employer DC contributions	na

**P&I estimate*

ST. LOUIS — As of Sept. 30, *Pensions & Investments* estimates McDonnell Douglas Corp.'s total employee benefit assets decreased 7.5% to $7.023 billion from the $7.589 billion the company reported a year earlier. Defined benefit assets decreased an estimated 8.1% during the same period, to $5.43 billion from $5.911 billion. Defined contribution assets decreased 5.1%, to an estimated $1.593 billion from $1.678 billion.

The key person overseeing the investment management of the fund is David Hammerstein, director-retirement funds management.

PIPER and PIPER + annual rankings will be published Feb. 18.

At Twentieth Century we strive to offer the best 401(k) administrative services and investment options possible. It's more than a promise, it's a commitment.

A COMMITMENT TO EXCELLENCE

Twentieth Century Services' state-of-the-art recordkeeping system features daily fund valuation. This means you get daily transfers; fast, accurate transaction processing and timely participant statements. Add to this a record of solid investment performance from Twentieth Century Investors' family of no-load mutual funds, and you truly have a commitment to excellence.

To learn more about Twentieth Century Services and Twentieth Century Investors, please call **1-800-345-2021** and ask for Institutional Marketing and Service. We'll send you an information kit and a prospectus, including charges and expenses. Please read the prospectus carefully before investing.

TWENTIETH CENTURY
SECURITIES INC.

P.O. Box 419385 • Kansas City, MO 64141-6385 • 1-800-345-2021 • 816-531-5575

Twentieth Century Securities provides institutional marketing for Twentieth Century Investors.

Metropolitan Life Insurance

	($ millions)
Total assets	3,395
Defined benefit	2,403
Thrift or savings	992
Employer DB contributions	0
Benefit payments	137
Employer DC contributions	33
Internally managed assets:	
Total DB	2,403
Total DC	992
Defined benefit asset mix:	
Stocks	31%
Fixed income	53%
Real estate equity	16%
Defined contribution asset mix:	
Other stock	19%
Fixed income	80%
Other	1%

NEW YORK — As of Sept. 30, Metropolitan Life Insurance Co.'s total employee benefit assets were virtually unchanged at $3.395 billion compared with $3.393 billion a year earlier. Defined benefit assets declined 1.8% during the same period, to $2.403 billion from $2.446 billion. Defined contribution assets increased 4.8% to $992 million from $947 million. All assets are managed internally.

State of Michigan Retirement Systems

	($ millions)
Total assets	17,268
Defined benefit	17,268
Employer DB contributions	873
Benefit payments	1,101
Internally managed assets	16,345
Hedging devices used:	
Stock index futures	
Defined benefit asset mix:	
Stocks	37%
Fixed income	31%
Cash equivalents	15%
Real estate equity	7%
Mortgages	6%
Other	4%

LANSING, Mich. — As of Sept. 30, the State of Michigan Retirement Systems' total assets decreased 3.8% to $17.268 billion from $17.948 billion a year earlier. All assets are defined benefit.

Real estate managers: AEW; Copley; Trammell Crow; Lehndorff & Babson; Lincoln Asset; NBD Mortgage; Sentinel; and Zell/Merrill Lynch.

Venture capital and LBO managers: Accel Partners; Battery Ventures; Berkshire Partners; Burr, Egan, Deleage; Enterprise Management; Frontenac; Great Lakes Capital; S/L Health Care Investment; Inter Ven Partners; KKR; Marquette Management; MBW; Menlo Ventures; MLGA Partners; Morgan Holland; Newtek Limited Partners; Plant Resources Venture Fund; Regional Financial Enterprises; Robertson, Colman & Stephens; Sunwestern Investment Group; Warburg, Pincus; and Wind Point Partners.

The master custodian is the state treasurer.

Key personnel overseeing the investment management of the fund are Barry L. Stevens, director, and Gordon H. Linsday, deputy director, both with the Bureau of Investments.

Minnesota Mining & Manufacturing Co.

	($ millions)
Total assets	3,288
Defined benefit	2,373
Total defined contribution	915
401(k)	894
ESOP	21
Employer DB contributions	63
Benefit payments	77
Employer DC contributions	30
Internally managed assets:	
Total DB	22
Total DC	507
Hedging devices used:	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stock	55.9%
Fixed income	22%
Cash equivalents	8.2%
Real estate equity	7.6%
Mortgages	3%
Other	3.3%
Defined contribution asset mix:	
Company stock	25.2%
Other stock	17.8%
GICs/BICs	50.5%
Loans	6.5%

ST. PAUL, Minn. — As of Sept. 30, Minnesota Mining & Manufacturing Co.'s total employee benefit assets decreased 5.8% to $3.288 billion from $3.49 billion a year earlier. Defined benefit assets decreased 13% during the same period, to $2.373 billion from $2.729 billion. Defined contribution assets increased 20.2%, to $915 million from $761 million.

Equity managers: Domestic — Advanced Investment; Alliance; Ashland; Cursitor-Eaton; Grantham, Mayo, Van Otterloo; IDS Advisory; Investment Research; Mellon Capital; Trinity; and ValueQuest.

International — Grantham, Mayo, Van Otterloo and Schroder.

Fixed-income managers: Domestic — Hoisington; Mellon Capital; PIMCO; and Sun Life, Canada.

Real estate managers: Citibank; Equitable; JMB; RCB; RREEF; Schroder; and TCW.

Other managers: Allen Value Partners; Forstmann Little; HLM Partners; New Amsterdam Partners; Oak Ventures; Olympus; Summit Ventures; Triumph; and Zell Chilmark.

The master trustee and global custodian is Boston Safe Deposit; the investment consultant is Harris Trust Consulting.

Key personnel overseeing the investment management of the fund are Jan Yeomans, director-benefit funds; Deborah Weiss, manager-pension investments; and Rajbir S. Kang, senior pension fund analyst.

Minnesota State Board of Investment

	($ millions)
Total assets	12,098
Defined benefit	11,651
Total defined contribution	447
Employer DB contributions	na
Benefit payments	na
Employer DC contributions	na
Internally managed assets:	
Total DB	5,278
Total DC	86
Hedging devices used:	
Stock options	
Bond options	
Defined benefit asset mix:	
Stocks	34.5%
Fixed income	56%
Cash equivalents	3%
Real estate equity	4.2%
Oil and gas	0.1%
Other	2.2%
Defined contribution asset mix:	
Stock	43%
Fixed income	20.8%
Cash equivalents	22.5%
GICs/BICs	13.7%

ST. PAUL, Minn. — As of Sept. 30, the Minnesota State Board of Investment's total employee benefit assets decreased 2% to $12.098 billion from $12.343 billion a year earlier. Defined benefit assets decreased 2% during the same period, to $11.651 billion from $11.89 billion. Defined contribution assets, in 457 and 401(a) plans, decreased 1.3%, to $447 million from $453 million.

Equity managers: Domestic — Alliance; Concord Capital; Forstmann-Leff; Franklin Portfolio; Geocapital; IDS Advisory; Investment Advisers; Lieber; Rosenberg Institutional; Sasco; Waddell & Reed; and Wilshire Associates.

Fixed-income managers: Domestic — Investment Advisers; Fidelity Management; Lehman Ark; Lincoln Capital; Miller, Anderson & Sherrerd; and Western Asset.

Real estate managers: Aetna; Equitable; Heitman; Prudential; RREEF; State Street Bank; and TCW.

Venture capital managers: Allied Capital; DSV Management; Brinson Partners; Golder Thoma & Cressey; Inman & Bowman; IAI Venture Capital Group; KKR; Matrix Partners; Norwest Venture Capital; Smith Barney Venture; Stamps, Woodsum; T. Rowe Price; and ZC.

Oil and gas managers: Apache; British Petroleum; First Reserve; and J.P. Morgan.

The master trustee is State Street Bank; the investment consultant is Richards & Tierney.

Key personnel overseeing the investment management of the fund are Howard J. Bicker, executive director, and Beth Lehman, assistant executive director.

Public Employees Retirement System of Mississippi

	($ millions)
Total assets	4,319
Defined benefit	4,319
Employer DB contributions	240
Benefit payments	232
Internally managed assets	156
Defined benefit asset mix:	
Stocks	32%
Fixed income	62%
Cash equivalents	6%

JACKSON, Miss. — As of Sept. 30, the Public Employees Retirement System of Mississippi's total employee benefit assets increased 4.6% to $4.319 billion from $4.129 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Bankers Trust; Boston Co.; DFA; Geocapital; INVESCO; Fayez Sarofim; and Sun Bank.

International — Bankers Trust and Hill Samuel.

Fixed-income managers: Domestic — Criterion; Dreyfus; Lehman-Ark; Mellon Bond; PIMCO; and Wells Fargo Nikko.

The master custodian is Trustmark National Bank; the global custodian is Boston Safe Deposit; the investment consultant is SEI.

Key personnel overseeing the investment management of the fund are Eddie B. Vandiver, deputy director-investments, and Ronald D. Logan, investment manager.

Public School Retirement System of Missouri

	($ millions)
Total assets*	5,800
Defined benefit	5,800
Employer DB contributions	155
Benefit payments	159
*as of June 30, 1990	
Defined benefit asset mix:	
Stocks	18.3%
Fixed income	74.3%
Cash equivalents	6.9%
GICs/BICs	0.5%

JEFFERSON CITY, Mo. — As of June 30, the Public School Retirement System of Missouri's total employee benefit assets increased 8.9% to $5.8 billion from $5.328 billion a year earlier. All assets are defined benefit.

Balanced managers: Boatmen's; Loomis, Sayles; and United Missouri.

The master custodian is Boatmen's; the investment consultant is DeMarche.

Key personnel overseeing the investment management of the fund are David Mustoe, executive secretary, and Joel Walters, assistant executive secretary.

Mobil Oil Corp.

	($ millions)
Total assets	4,675
Defined benefit	2,200
Total defined contribution	2,475
Employer DB contributions	76
DB payments	197
Employer DC contributions	52
Defined benefit asset mix:	
Stocks	48%
Fixed income	38%
Cash equivalents	6%
Other	8%
Defined contribution asset mix:	
Company stock	51%
Other stock	6%
Fixed income	3%

Top 200 funds with assets in GICs/BICs

($ millions)

Fund	Total	Defined benefit	Defined contribution
AT&T	2,859	0	2,859
Westinghouse Electric	1,750	0	1,750
General Dynamics	1,688	185	1,503
General Electric	1,622	404	1,218
Unisys	1,371	169	1,202
Prudential Insurance	1,332	0	1,332
Southern Baptist	1,321	77	1,244
Ford Motor	1,100	0	1,100
Philip Morris	1,085	0	1,085
Halliburton	929	0	929
GTE	854	0	854
Allied-Signal	839	169	670
Mobil Oil	815	0	815
Xerox	810	0	810
J.C. Penney	805	0	805
Procter & Gamble	801	0	801
NYNEX	792	0	792
Ameritech	729	0	729
BP America	714	0	714
Rhode Island	700	700	0
Honeywell	645	5	640
Raytheon	627	0	627
Monsanto	612	0	612
Equitable Life	607	0	607
United Airlines	550	0	550
Grumman	539	0	539
Union Carbide	507	0	507
Travelers	506	506	0
Delta Air Lines	500	0	500
Phillips Petroleum	500	0	500
ITT	499	0	499
Hospital/Health Care	496	496	0
ALCOA	472	0	472
Colorado Employees	453	453	0
United Parcel Service	446	90	356
K mart	441	43	398
PPG Industries	422	1	421
Inland Steel	418	69	349
Southwestern Bell	412	0	412
Johnson & Johnson	400	0	400
Cooper Industries	396	0	396
Pacific Telesis	393	0	393
TRW	386	0	386
Eli Lilly	355	0	355
American Electric Power	349	0	349
Chrysler	349	0	349
Trans World Airlines	321	65	256
Hercules	296	34	262
United Methodist Church	290	136	154
S. California UFCW	253	253	0
Deere	226	0	226
Chevron	219	219	0
Nat'l Rural Electric Co-op	215	0	215
GenCorp	195	0	195
S. New England Telephone	190	0	190
Tennessee Valley Authority	181	26	155
Martin Marietta	168	0	168
Armco	146	11	135
Nat'l Electrical Contractors	144	117	27
Consolidated Natural Gas	143	0	143
USX	140	0	140
Abbott Laboratories	131	0	131
S. California Edison	128	72	56
Presbyterian Church	120	120	0
NCR	110	0	110
Anheuser-Busch	101	51	50
Oklahoma Teachers	90	90	0
Caterpillar	89	0	89
Teamsters, Western Conference	68	68	0
Minnesota State Board	61	0	61
Textron	55	55	0
Operating Engineers Int'l	54	54	0
Pacific Gas & Electric	40	0	40
Hawaii Employees	35	35	0
Missouri School	30	30	0
Boilermaker-Blacksmith	28	28	0
New York Life	28	0	28
Navistar	23	0	23
Bakery & Confectioners	21	21	0
Georgia-Pacific	21	21	0
Atlantic Richfield	19	19	0
Bechtel Power	13	0	13
Bethlehem Steel	10	10	0
UMWA	5	0	5
Total	**39,663**	**4,902**	**34,761**

GICs/BICs	32%
Cash equivalents	8%

FAIRFAX, Va. — As of Sept. 30, Mobil Oil Corp.'s total employee benefit assets increased 2.5% to $4.675 billion from $4.56 billion as of Aug. 31, 1989. Defined benefit assets fell 9.3% during the same period to $2.2 billion from $2.425 billion. Defined contribution assets, in a thrift/savings plan that combines post- and pre-tax and leveraged ESOP provisions, increased 15.9% to $2.475 billion from $2.135 billion.

Equity managers: Domestic - Alliance; Capital Guardian; Jennison; Miller, Anderson & Sherrerd; Fayez Sarofim; and Wells Fargo Nikko.

International - Capital Guardian.

Fixed-income managers: Domestic — Criterion; Henry Kaufman; Loomis, Sayles; Miller, Anderson & Sherrerd; J.P. Morgan; PIMCO; and State Street Research.

GIC managers: John Hancock; Metropolitan Life; and Prudential.

Insurance GAC manager: Metropolitan Life.

Cash managers: United States Trust and Bankers Trust.

TAA manager: Bridgewater Asset.

The master trustee for the defined benefit plan is United States Trust Co. of New York, and for the defined contribution plan, Bankers Trust.

Key personnel overseeing the investment management of the fund are Robert B. Hahnen, manager, corporate benefits-finance; Daniel J. Lynch, assistant manager, corporate benefits-finance; and Alan H. Siegel, manager, corporate benefits & banking.

Monsanto Co.

	($ millions)
Total assets	4,055
Defined benefit	2,959
Defined contribution	1,096
Employer DB contributions	0
Benefit payments	184
Employer DC contributions	32
Internally managed assets:	
Total DB	67
Hedging devices used:	
Stock options	
Bond options	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	60%
Fixed income	25%
Cash equivalents	5%
Real estate equity	10%
Defined contribution asset mix:	
Company stock	29%
Other stock	7%
GICs/BICs	64%

ST. LOUIS — As of Sept. 30, Monsanto Co.'s total employee benefit assets decreased 5.7% to $4.055 billion from $4.3 billion a year earlier. Defined benefit assets decreased 7.5% during the same period, to $2.959 billion from $3.2 billion. Defined contribution assets, which are in a combination profit-sharing/401(k) plan, decreased 0.4%, to $1.096 billion from $1.1 billion.

Equity managers: Domestic — Brown Capital; Delaware Investment; Hagler, Mastrovita & Hewitt; Hotchkis and Wiley; Jennison; Lincoln Capital; Lord, Abbett; Mellon; Morgan Grenfell; T. Rowe Price; PRIMECAP; RCM Capital; State Street Research; and Trinity.

International — Capital Guardian; Martin Currie and Rowe Price-Fleming.

Fixed-income managers: Analytic Options; Boatmen's; Citicorp; Fischer, Francis, Trees & Watts; W.R. Huff; J.P. Morgan; Security Pacific; Standish, Ayer & Wood; STW; and TCW.

Real estate managers: Barings; Equitable; LaSalle; RREEF; TCW Realty; and U.S. Trust.

T.A.A. manager: Chancellor.

The master trustee and global custodian is Northern Trust; the investment consultant is Frank Russell.

Key personnel overseeing the investment management of the fund are A.E. Wolfarth, director-pension asset management; P.S. Moench, manager-pension asset management; and D.B. Guthrie, manager-pension analysis.

Top 200 funds with assets in dedicated/immunized bonds

Defined benefit

Fund	($ millions)
Maryland State	5,331
Teamsters, Western	3,969
Ameritech	3,277
Southwestern Bell	1,986
UMWA	1,615
General Dynamics	1,400
ALCOA	1,246
American Airlines	975
Caterpillar	895
Los Angeles Fire & Police	729
Equitable Life	574
Tennessee Valley Authority	535
PPG Industries	528
Raytheon	516
Deere	464
Nevada Employees	457
Inland Steel	453
Consolidated Natural Gas	337
Armco	317
Phillips Petroleum	200
Navistar	197
Procter & Gamble	93
Bakery & Confectionery	85
Teamsters, Central States	81
Boilermaker-Blacksmith	70
Hospital/Health Care	70
United Methodist Church	69
S. New England Telephone	60
Johnson & Johnson	55
United Technologies	25
Total	**26,609**

Defined contribution

Fund	($ millions)
United Methodist Church	220
PPG Industries	9
Total	**229**

Motorola Inc.

	($ millions)
Total assets	2,019
Defined benefit	537
Total defined contribution	1,482
PAYSOP	36
Other	1,446
Employer DB contributions	0
Benefit payments	10
Employer DC contributions	39
Hedging devices used:	
Bond options	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	60.5%
Fixed income	39.5%
Defined contribution asset mix:	
Company stock	8.4%
Other stock	36.6%
Fixed income	54%
Cash equivalents	1%

SCHAUMBURG, Ill. — As of Sept. 30, Motorola Inc.'s total employee benefit assets increased 0.1% to $2.019 billion from $2.017 billion a year earlier. Defined benefit assets decreased 5.1% during the same period, to $536.9 million from $565.9 million. Defined contribution assets increased 2.1%, to $1.482 billion from $1.451 billion.

Equity managers: Domestic — Capital Guardian; Delaware; Jennison; Lehman Ark; Lincoln Capital; Harris Investment; and Northern Trust.

International — Brinson Partners and Morgan Grenfell.

Fixed-income managers: Domestic — Harris Investment; Scudder, Stevens & Clark; Stein Roe & Farnham; and Weiss Peck & Greer.

The master trustee for the pension plan is Harris Trust and for the defined contribution plan, Northern Trust; both firms act as global custodians for the respective plans.

The key person overseeing the investment management of the fund is William H.S. Preece Jr., assistant treasurer-investments.

Investment management consultants will be profiled in the Nov. 11 issue of *Pensions & Investments*.

N

National Electrical Contractors Association-International Brotherhood of Electrical Workers

	($ millions)
Total assets	3,692
Defined benefit	3,479
401(k)	213
Employer DB contributions	175
Benefit payments	187
Employer DC contributions	28
Defined benefit asset mix:	
Stocks	32%
Fixed income	32%
Cash equivalents	11%
Real estate equity	4%
Mortgages	12%
GICs/BICs	4%
Participating mortgages	5%
Defined contribution asset mix:	
Other stock	21%
Fixed income	38%
Cash equivalents	12%
GICs/BICs	13%
Other	16%

WASHINGTON — As of Sept. 30, the National Electrical Contractors Association — International Brotherhood of Electrical Workers' total employee benefit assets increased 0.5% to $3.692 billion from $3.675 billion a year earlier. Defined benefit assets decreased 0.3% during the same period, to $3.479 billion from $3.490 billion. Defined contribution assets increased 15.1% to $213 million from $185 million.

The master trustee is Boston Safe; the investment consultant is Marco Consulting.

Key personnel overseeing the investment management of the fund are John Grau, trustee; Jack Moore, trustee; and Roy Dickinson, executive assistant.

National Rural Electric Cooperative Association

	($ millions)
Total assets	2,120
Defined benefit	1,601
401(k)	519
Employer DB contributions	na
Benefit payments	na
Employer DC contributions	na
Defined benefit asset mix:	
Stocks	46%
Fixed income	35%
Cash equivalents	19%
Defined contribution asset mix:	
Other stock	26%
Fixed income	1%
Cash equivalents	33%
BICs/GICs	40%

WASHINGTON — As of Sept. 30, the National Rural Electric Cooperative Association's total employee benefit assets decreased 8% to $2.12 billion from $2.304 billion a year earlier. Defined benefit assets decreased 12.2% during the same period, to $1.601 billion from $1.824 billion. Defined contribution assets increased 8.1%, to $519 million from $480 million.

Equity managers: Domestic — Barrow, Hanley, Mewhinney & Strauss; Capital Guardian; and Chesapeake.

International — Grantham, Mayo, Van Otterloo and J.P. Morgan.

Fixed-income managers: Domestic — Lincoln Income Group.

The master trustee and global custodian is State Street Bank.

Key personnel overseeing the investment management of the fund are Peter R. Morris, executive director-investments; Stuart E. Teach, senior equity portfolio manager; and Douglas G. Kern, senior fixed-income portfolio manager.

Navistar International Corp.

	($ millions)
Total assets	2,005
Defined benefit	1,971
401(k)	34
Employer DB contributions	48
Benefit payments	231
Employer DC contribution	0
Hedging devices used:	
Fixed-income futures	
Defined benefit asset mix:	
Fixed income	100%
Defined contribution asset mix:	
Company stock	7.4%
Other stock	24.7%
GICs/BICs	67.9%

CHICAGO — As of Sept. 30, Navistar International Corp.'s total employee benefit assets decreased 2.6% to $2.005 billion from $2.058 billion a year earlier. Defined benefit assets decreased 3% during the same period, to $1.971 billion from $2.031 billion. Defined contribution assets increased 25.9%, to $34 million from $27 million.

Equities managers: Domestic — GAMCO; Prudential; and Frank Russell.

Fixed-income managers: Domestic — Jennison and Morgan Bank.

The master trustee is Northern.

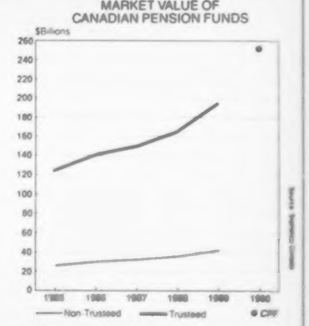
Key personnel overseeing the investment management of the fund are Terry Endsley, director-investments, and Evelyn Willis, pension analyst.

NCR Corp.

	($ millions)
Total assets	1,700
Defined benefit	1,360
Total defined contribution	340
Profit-sharing	70
Thrift or savings	250
PAYSOP	20
Employer DB contributions	na
Benefit payments	50
Employer DC contributions	20
Internally managed assets:	
Total DB	140
Defined contribution asset mix:	
Company stock	7%
Other stock	39%
Fixed income	7%
Cash equivalents	11%
GICs/BICs	36%

DAYTON, Ohio — As of Sept. 30, NCR Corp.'s total employee benefit assets increased 6.1% to $1.7 billion from $1.602 billion a year earlier. Defined benefit assets increased 2.2% during the same period, to $1.36 billion from $1.331 billion. Defined contribution assets increased 25.5%, to $340 million from $271 million.

INTRODUCING THE 1990-91 EDITION OF THE:
Canadian Pension Fund Investment Management Directory
Our fifth edition provides comprehensive profiles on:
☐ Top 1000 Pension Funds
☐ Top 100 Investment Managers
☐ Investment Consultants
☐ Custodians



To order your copy or for additional information call or write:
CPF PUBLISHING INC
65 Front St. West, Suite 0116, Box 157, Toronto, Canada M5J 1E6 (416) 846-4349

RESEARCH ACCESS Inc.
Complete access to unequalled research on investment advisors - A must for trustees, fiduciaries and consultants.
Make your own decisions about money managers
DATA:
* Over 1000 portfolios
* Performance, risk, style, & investment strategy
* Due diligence
* Comparison indexes and performance statistics
SOFTWARE:
* Search and find based on 25 parameters
* Compare one to another
* Presentation graphics
* Fast and easy to use
* Updated quarterly
REPORTS:
* Monitor risk and performance in your portfolios
* Automatic and regular reporting
* Add value for your clients
* Color
IBM, Mac
Minimum system requirements apply
$640.00
Annual subscription
Call (312) 642-0037 or write
60 E. Chestnut, Suite 112
Chicago, IL 60611

Equity managers: Domestic — Columbus Circle; Fidelity; INVESCO; Mellon; Newbold's; State Street and Wells Fargo.

International — Wells Fargo.

Fixed-income managers: Domestic — Fidelity and J.P. Morgan.

Real estate managers: Equitable.

Other mangers: Dillon, Read and State Street.

The master trustees are Citibank and State Street.

Key personnel overseeing the investment management of the fund are Norman M. Poa, assistant treasurer; Robert D. Smith, manager; and Kent M. Stahl, senior analyst.

Public Employees Retirement System of Nevada

	($ millions)
Total assets	3,308
Defined benefit	3,308
Employer DB contributions	258
Benefit payments	123
Hedging devices used:	
Stock options	
Bond options	
Defined benefit asset mix:	
Stocks	35.2%
Fixed income	53%
Cash equivalents	0.4%
Real estate equity	8.9%
Mortgages	2.2%
Venture capital	0.3%

CARSON CITY, Nev. — As of Sept. 30, the Public Employees Retirement System of Nevada's total employee benefit assets increased 2.2% to $3.308 billion from $3.236 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Alliance; DFA; INVESCO; Loomis, Sayles; Wellington; and Wells Fargo Nikko.

International — Axe-Core.

Fixed-income managers: Domestic — Criterion; Patterson Capital; Putnam; and State Street Research.

Real estate managers: Heitman; JMB; Karsten; Lehndorff & Babson; J.P. Morgan; PMRealty; Prudential; and TCW.

Other managers: Balch, Hardy; Bankers Trust; Bay Partners; Criterion; Columbine; Golder, Thoma & Cressey; Interven; Lawrence, Tyrrell, Ortale & Smith; Menlo Ventures; and Summit Ventures.

The master custodian is Security Pacific; the investment consultants are Callan and Wilshire.

Key personnel overseeing the investment management of the fund are Laura B. Wallace, investment officer, and Peggy Clark, investment analyst.

New Jersey Division of Investment

	($ millions)
Total assets*	26,609
Defined benefit	26,335
Total defined contribution	274
Employer DB contributions	850
Benefit payments	500
Employer DC contributions	na
*as of June 30, 1990	
Internally managed assets:	
Total DB	26,335
Total DC	274
Hedging devices used:	
Stock options	
Defined benefit asset mix:	
Stocks	48.3%
Fixed income	34.1%
Cash equivalents	3.7%
Mortgages	13.9%
Defined contribution asset mix:	
Other stock	66.1%
Fixed income	10.2%
Cash equivalents	23.7%

TRENTON, N.J. — As of June 30, the New Jersey Division of Investment's total employee benefit assets increased 8.5% to $26.609 billion from $24.526 billion as of Sept. 30, 1989. Defined benefit assets increased 8.5% during the same period, to $26.335 billion from $24.278 billion. Defined contribution assets, representing 457 and 403(b) plans, increased 10.5%, to $274 million from $248 million. All assets are managed internally.

The master custodians are: First Fidelity; Midlantic; CoreStates; and Bankers Trust. The global custodian is Bankers Trust.

Key personnel overseeing the investment management of the fund are Roland M. Machold, director; Anthony A. Arcuni, deputy director; and Stephen E. Kornrumpf, assistant director.

New Mexico Educational Retirement Board

	($ millions)
Total assets	1,990
Defined benefit	1,990
Employer DB contributions	78
Benefit payments	108
Internally managed assets	1,990
Defined benefit asset mix:	
Stocks	16%
Fixed income	80%
Cash equivalents	4%

SANTA FE, N.M. — As of Sept. 30, the New Mexico Educational Retirement Board's total employee benefit assets increased 5.3% to $1.99 billion from $1.89 billion a year earlier. All assets are defined benefit and managed in-house. Wellington Management serves as an adviser.

The master trustee is Bank of New York.

Key personnel overseeing the investment management of the fund are John E. Young, chief investment officer, and Sharon L. Scrogham, investment officer.

New Mexico Public Employees' Retirement Association

	($ millions)
Total assets	1,860
Defined benefit	1,860
Employer DB contributions	105
Benefit payments	95
Internally managed assets	100
Defined benefit asset mix:	
Stocks	37%
Fixed income	55.7%
Cash equivalents	6%
Real estate equity	0.3%
Mortgages	1%

SANTA FE, N.M. — As of Sept. 30, the New Mexico Public Employees' Retirement Association's total employee benefit assets increased 3.3% to $1.86 billion from $1.8 billion a year earlier. All assets are in defined benefit plans.

Equity managers: Domestic — Bankers Trust and Smith Barney.

Fixed-income managers: Domestic — Brown Brothers Harriman; Criterion; and Wentworth Hauser & Violich.

The master custodian is Bank of New York; the investment consultant is Wilshire.

Richard Miller, director of investments, oversees the investment management of the fund.

New York City Retirement Systems

	($ millions)
Total assets	40,763
Defined benefit	40,763
Employer DB contributions	1,834
Benefit payments	3,464
Internally managed assets	953
Defined benefit asset mix:	
Stocks	30%
Fixed income	57%
Cash equivalents	10%
GICs/BICs	3%

NEW YORK — As of Sept. 30, the New York City Retirement Systems' total employee benefit assets decreased 2% to $40.763 billion from $41.404 billion a year earlier. All assets are defined benefit.

The New York City comptroller's office oversees all investments for the New York City Employees', the Fire Department and the Police Department Retirement systems; and fixed-income investments for the Teachers' and the Board of Education systems. The Teachers' system oversees its GIC and equity investments and the equity investments of the Board of Education system.

All figures in this profile are for the combined systems, except for contribution, benefit payment and internal management figures, which do not include the teachers system because those figures were not available.

Equity managers: Domestic — Bankers Trust; Bear Stearns; Fidelity; Investment Advisors; Lazard Freres; Oppenheimer; J.W. Seligman; and TCW.

Teachers fund: Domestic — Axe-Core; Bankers Trust; Concord; Goldman, Sachs; John A. Levin; Mellon Capital; Prudential Asset; Rosenberg Institutional; Sound Shore; and Trinity.

International — Wells Fargo.

Fixed-income managers: Domestic — Bankers Trust; BEA; Bear Stearns; Fiduciary; Fischer, Francis, Trees & Watts; Investment Advisors; Kennedy; Lehman; Lincoln; Mellon; Miller, Anderson & Sherrerd; Mitchell Hutchins; PIMCO; T. Rowe Price; Putnam; RCM; Smith Barney; State Street; Weiss, Peck & Greer; and Wells Fargo.

International — T. Rowe Price.

The master custodian is Citibank; the investment consultants are Callan; SEI; EAI; Rogers, Casey; and Buck.

Key personnel overseeing the investment management of the fund are Beverly L. Hamilton, third deputy comptroller; William Paolino, chief-Bureau of Asset Management; Candace Cox, division chief-investment strategy; Carol O'Cleireacain, commissioner-Department of Finance; Peter Gilbert, director-mayor's pension unit.

New York Life Insurance Co.

	($ millions)
Total assets*	1,674
Defined benefit	1,443
Total defined contribution	231
Employer DB contributions	0
Benefit payments	53
Employer DC contributions	10
*P&I estimate	
Internally managed assets:	
Total DB	874
Total DC	231
Defined benefit asset mix:	
Stocks	24.8%
Fixed income	73.5%
Real estate equity	1.7%
Defined contribution asset mix:	
Stock	12.7%
Fixed income	70.8%
GICs/BICs	12.3%
Other	4.2%

NEW YORK — As of Sept. 30, *Pensions & Investments* estimates New York Life Insurance Co.'s total employee benefit assets were $1.674 billion. That estimate is based on the $1.668 billion the company reported as of Dec. 31, 1989 and represents a 4.3% decrease from the previous year's estimate of $1.749 billion. Defined benefit assets decreased 5.4% during the same period to an estimated $1.443 billion from an estimated $1.525 billion. Defined contribution assets increased 3.1% to an estimated $231 million from an estimated $224 million.

Equity managers: Domestic — MacKay-Shields and Monitor Capital.

International — Gamma Advisers.

Fixed-income managers: Domestic — MacKay-Shields and Monitor Capital.

International — Gamma Advisers.

Real estate manager: Greystone.

The key personnel overseeing the investment management of the fund are Lester L. Schoenberg, senior vice president; Paul T. Smith, senior vice president; George J. Trapp, vice president.

INTERESTED IN A SMALL CAP MANAGER WITH A SUPERIOR TEN-YEAR PERFORMANCE TRACK RECORD

Consider Value Line Asset Management

- Over $400 million in Small Cap accounts managed
- 2000 stocks with less than $500 million in market capitalization in our analytical universe
- Clearly defined process based on Value Line's time-tested Ranking System and other disciplines
- A designated minority manager

For information call:
John K. Webster, Vice President, (212) 490-1308

Value Line Asset Management • 711 Third Avenue, New York, NY 10017

Coming Up In 1991

February 18th PIPER & PIPER+, Annual Performance Report Ad Closing: February 6th	March 4th Financing and Investing In Emerging Markets Ad Closing: February 20th
March 18 Guaranteed Investment Contracts: What does the future hold? Ad Closing: March 6th	April 1st New Horizons for Defined Contribution Plans Ad Closing: March 20th
April 15th Governing Corporate America: Management and Investors Jockey for Position (A Proxy Season Preview) April 3rd	April 29th Opportunities Abroad: International Real Estate Investing and Financing April 17th

Pensions&Investments

For advertising information call P&I at (212) 210-0114.

New York State and Local Retirement Systems

	($ millions)
Total assets	43,737
Defined benefit	43,737
Employer DB contributions	769
Benefit payments	1,721
Internally managed assets	36,745
Defined benefit asset mix:	
Stocks	43.3%
Fixed income	43.3%
Cash equivalents	3%
Real estate equity	2.2%
Mortgages	5.9%
Other	2.3%

ALBANY, N.Y. — As of Sept. 30, the New York State and Local Retirement Systems' total employee benefit assets decreased 1.1% to $43.737 billion from $44.238 billion a year earlier. All assets defined benefit.

Equity managers: Domestic — Alliance; Capital Guardian; Delaware; Lazard; Lord Abbett; Miller, Anderson; Oppenheimer; J.W. Seligman; Shearson; and Wells Fargo.

International — Alliance and Capital Guardian.

Real estate managers: CIGNA; Copley; Corporate Property Investors; ERIM/Select; Goldman, Sachs; JMB; LaSalle; O'Connor; RREEF; Schroder; and TCW.

Limited partnerships: APA Excelsior I and II; Adler & Shaykin; Bridge Capital; Corporate Ventures; Crossroads; Equitable; Forstmann Little; FS Equity; KKR; Gray Klein; Health Care Ventures II; Montgomery Bridge; NYS Business Venture; Peregrine Ventures; U.S. Venture Partners; and Warburg Pincus.

The master custodian and global custodian is Chase Manhattan; the investment consultant is Callan.

Key personnel overseeing the investment management of the fund are Edward V. Regan, state comptroller, and John E. Hull, deputy comptroller.

New York State Teachers' Retirement System

	($ millions)
Total assets	26,689
Defined benefit	26,689
Employer DB contributions	453
Benefit payments	876
Internally managed assets	24,527
Defined benefit asset mix:	
Stocks	53%
Fixed income	35%
Cash equivalents	2%
Real estate equity	3%
Mortgages	6%
Other	1%

ALBANY, N.Y. — As of Sept. 30, the New York State Teachers' Retirement System's total employee benefit assets decreased 5.1% to $26.689 billion from $28.13 billion a year earlier. All assets are defined benefit.

Equity managers: Sanford Bernstein; Cowen; GAMCO; Lehman Management; Morgan Grenfell; Peregrine Capital; and RCM.

Fixed-income managers: Domestic — Sanford Bernstein.

Real estate managers: Aetna Life; Equitable Life; Equitable Real Estate; Goldman, Sachs; Jones Lang Wootton; LaSalle; Lehndorff & Babson; J.W. O'Connor; Prudential Insurance; and RREEF.

The master custodian is Bankers Trust; the investment consultant is Buck.

Key personnel overseeing the investment management of the fund are Harold N. Langlitz, executive director; Edward J. Reno Jr., securities investment officer; and George M. Philip, chief real estate investment officer.

North Carolina Retirement System

	($ millions)
Total assets	17,289
Defined benefit	17,289
Employer DB contributions	576
Benefit payments	620
Internally managed assets	11,905
Hedging devices used:	
Stock options	
Defined benefit asset mix:	
Stocks	30%
Fixed income	69%
Real estate equity	1%

RALEIGH, N.C.— As of Sept. 30, the North Carolina Retirement System's total employee benefit assets increased 3% to $17.289 billion from $16.791 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Alliance; Branch Banking & Trust; Central Carolina Bank; First Citizens Bank; First Union National; First Wachovia; North Carolina National Bank; and Wellington.

International — Wellington.

Real estate managers: Aetna; CIGNA; First Wachovia; Goldman, Sachs; J.P. Morgan; NCNB National Bank; and Sentinel.

Other managers: Carolinas Capital; DLJ Capital; John Hancock Venture Partners; InterSouth Partners; Kitty Hawk Capital; Massey Burch; N.C. Enterprise; and Venture First Associates.

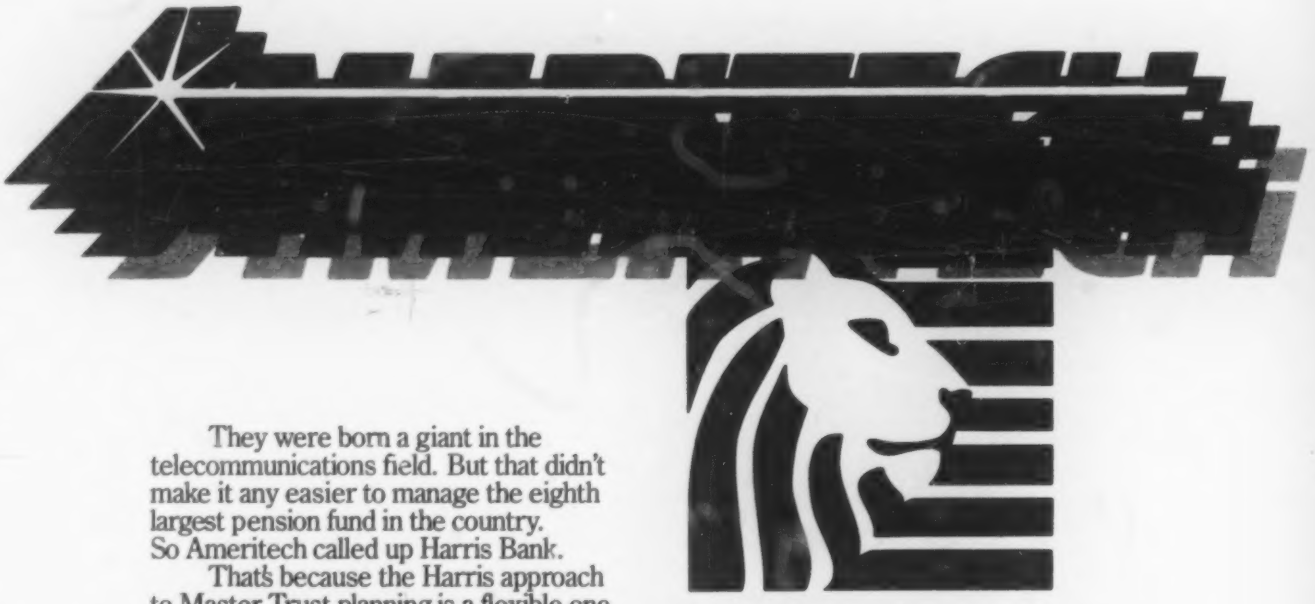
The master custodian is The Bank

Eastbridge
CAPITAL INC.

135 East Fifty Seventh Street
New York, New York 10022
George D. Hawes, Vice President
(212) 756-7200

Quantitative Fixed Income Management

When Ameritech needed a Master Trust who did they dial for information?



They were born a giant in the telecommunications field. But that didn't make it any easier to manage the eighth largest pension fund in the country. So Ameritech called up Harris Bank.

That's because the Harris approach to Master Trust planning is a flexible one. Rather than a preset service package, we offered Ameritech a custom-tailored plan to meet their specific needs. A plan that can be further adapted, as their needs grow and change.

This kind of cooperative planning means we do more than respond to requests. We initiate ideas. And offer expert help, not just from one source person, but from various levels of our Master Trust department.

For Ameritech, the Harris brand of flexible teamwork made the best Master Trust connection. See what we can do for you. Call our Marketing Representative at (312) 461-7956.

The Harris.
Move up to the Banking Lion.

Harris Trust and Savings Bank, 111 W. Monroe St., Chicago, IL 60603. Member FDIC, Federal Reserve System.

of New York.

Key personnel overseeing the investment management of the fund are Harlan E. Boyles, state treasurer; C. Douglas Chappell, deputy treasurer and director of the investment and banking division; and P. Keith Leonard, assistant state investment officer.

Northern California Carpenters District Council

	($ millions)
Total assets*	1,608
Defined benefit	1,307
Total defined contribution	301
Employer DB contributions	56
Benefit payments	na
Employer DC contributions	32

From Money Market Directory

OAKLAND, Calif. — As of May 1990, the Northern California Carpenters District Council reported total employee benefit assets of $1.608 billion, according to the Money Market Directory. Defined benefit assets totaled $1.307 billion and defined contribution assets, $301 million.

The key person overseeing the investment management of the fund is Houston Kemper, administrator.

Northrop Corp.

	($ millions)
Total assets	3,304
Defined benefit	2,566
Total defined contribution	738
Thrift or savings	612
ESOP	126
Employer DB contributions	0
Benefit payments	70
Employer DC contributions	37
Defined benefit asset mix:	
Stocks	71%
Fixed income	22%
Cash equivalents	7%
Defined contribution asset mix:	
Company stock	18%
Other stock	42%
Fixed income	12%
Cash equivalents	28%

LOS ANGELES — As of Sept. 30, Northrop Corp.'s total employee benefit assets decreased 8.8% to $3.304 billion from $3.623 billion a year earlier. Defined benefit assets decreased 8.9% during the same period, to $2.566 billion from $2.816 billion. Defined contribution assets decreased 8.6%, to $738 million from $807 million.

Equity managers: Domestic — Capital Guardian; First Manhattan Capital; Forstmann-Leff; Jennison; Putnam Advisory; RCM; Security Pacific; State Street Research; and U.S. Trust of California.

Fixed-income managers: Domestic — Fischer, Francis, Trees & Watts and Jennison Associates.

The master trustee is Bankers Trust.

The key person overseeing the investment management of the fund is R.M. Abelson, director-trust administration and investments.

NYNEX Corp.

	($ millions)
Total assets	14,383
Defined benefit	11,886
Total defined contribution	2,497
Employer DB contributions	0
Benefit payments	612
Employer DC contributions	60
Internally managed assets:	
Total DB	1,555
Total DC	792
Hedging devices used:	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	53%
Fixed income	34.9%
Cash equivalents	0.8%
Real estate equity	10.2%
Other	1.1%
Defined contribution asset mix:	
Company stock	29.7%
Other stock	24%
Fixed income	9.5%
GICs/BICs	35%
Loan fund	1.8%

NEW YORK — As of Sept. 30, NYNEX Corp.'s total employee benefit assets decreased 10.5% to $14.383 billion from $16.062 billion a year earlier. Defined benefit assets decreased 10.4% during the same period, to $11.886 billion from $13.262 billion. Defined contribution assets decreased 10.8%, to $2.497 billion from $2.8 billion. The defined contribution plan is a leveraged ESOP valued at $5.273 billion, of which $2.497 billion is in plan assets and the remainder is in borrowings.

Equity managers: Domestic — American National Bank; Barrow, Hanley, Mewhinney & Strauss; Daniel Breen; DFA; Fidelity Management; Franklin Portfolio; Investment Research; McCowan Associates; Mitchell Hutchins; Trinity; TCW; and Wells Fargo Nikko.

International — American National Bank; Capital Guardian International; DFA; Morgan Stanley; Pictet International; State Street Bank; and Wells Fargo Nikko.

Fixed-income managers: Domestic — Boston Co.; Brown Brothers Harriman; Global Fixed Income; John Hancock; Jennison; Lincoln; Miller, Anderson & Sherrerd; Mellon Bond; Mitchell Hutchins; Standish, Ayer & Wood; State Street Research; and Western Asset.

International — Global Fixed Income and WorldInvest.

Real estate managers: AEW; Corporate Property Investors; Heitman; Mellon-McMahan; and TREET.

The master trustee and global custodian is Mellon Bank.

Key personnel overseeing the investment management of the fund are Joseph E. Clines, director-investment management and securities registration; Richard L. Wolf, investment director-pension and savings plan investment management; Joseph A. Sutka, investment director-research, planning and internal investments; and Edward X. Roche, investment director-pension and savings plan administration.

O

The Police and Firemen's Disability and Pension Fund of Ohio

	($ millions)
Total assets	3,101
Defined benefit	3,101
Employer DB contributions	159
Benefit payments	258
Internally managed assets	1,940
Hedging devices used:	
Stock options	
Defined benefit asset mix:	
Stocks	29%
Fixed income	57.6%
Cash equivalents	5%
Real estate equity	7.6%
Mortgages	0.4%
Venture capital	0.4%

COLUMBUS, Ohio — As of Sept. 30, The Police and Firemen's Disability and Pension Fund of Ohio's total employee benefit assets increased 1% to $3.101 billion from $3.07 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Atalanta/Sosnoff; Axe-Core; Bankers Trust; Duff & Phelps; Loomis, Sayles; Oppenheimer; Society Bank; and Value Line.

Real estate managers: Copley; Meyer;MIG; Schroder; and TA Associates.

Other managers: Cardinal Financial; Primus; and Chemicals and Materials Enterprise Associates.

The custodian is the state treasurer; the real estate investment consultant is Townsend.

Key personnel overseeing the investment management of the fund are Theodore G. Hall, assistant director-investments, and Christopher J. Woods, fixed-income portfolio manager.

Ohio Public Employees' Retirement System

	($ millions)
Total assets	20,595
Defined benefit	20,595
Employer DB contributions	804
Benefit payments	914
Internally managed assets	19,620
Defined benefit asset mix:	
Stocks	16.4%
Fixed income	52.5%
Cash equivalents	26.4%
Real estate equity	4.7%

COLUMBUS, Ohio — As of Sept. 30, the Ohio Public Employees' Retirement System's total employee benefit assets increased 6.7% to $20.595 billion from $19.305 billion a year earlier. All assets are defined benefit.

Real estate managers: AFL-CIO; Lowe Enterprises; NCNB; Rothschild; Sentinel; and Wells Fargo.

The custodian is the state treasurer.

The key person overseeing the investment management of the fund is Robert A. McLaughlin, investment officer.

Top 200 funds with assets in mortgages

Defined benefit

Fund	($ millions)
Ohio State Teachers	3,276
California Employees	3,000
Florida State Board	2,698
New York State & Local	2,587
Alabama Retirement	2,245
New York State Teachers	1,584
Washington State Board	1,100
State of Michigan	1,049
Pennsylvania Employes	680
California State Teachers	618
Oregon Employes	554
Nat'l Electrical Contractors	435
Hawaii Employees	361
Colorado Employees	322
ALCOA	300
Virginia Retirement	259
Arizona State	244
Kentucky Retirement	220
Connecticut Trust Funds	217
Operating Engineers	206
Alaska State	186
Wisconsin State Board	185
Bakery & Confectionery	181
Pennsylvania School	155
Westinghouse Electric	152
Idaho Employees	131
Kentucky Teachers	98
Union Carbide	94
Los Angeles County	92
Presbyterian Church	80
Nevada Employees	72
Minnesota Mining & Mfg.	70
Arkansas Teachers	55
Episcopal Church	50
Illinois Municipal	42
Teamsters, Western	42
Chicago Municipal	41
USX	30
Ohio School Employees	28
Aetna	22
New Mexico Employees	20
Utah State	20
Maryland State	18
Southern Baptist	17
Owens-Illinois	16
Ohio Police & Firemen	13
Atlantic Richfield	10
Georgia Teachers	10
Illinois State Board	6
Phillips Petroleum	5
S. California UFCW	2
United Methodist Church	1
GenCorp	1
Total	**23,902**

Defined contribution

Fund	($ millions)
TIAA-CREF	19,500
Halliburton	2
United Methodist Church	1
Total	**19,503**

School Employees Retirement System of Ohio

	($ millions)
Total assets	2,824
Defined benefit	2,824
Employer DB contributions	182
Benefit payments	255
Internally managed assets	1,752
Defined benefit asset mix:	
Stocks	37.7%
Fixed income	42.9%
Cash equivalents	5.7%
Real estate equity	11.8%
Mortgages	1%
Venture capital	0.9%

COLUMBUS, Ohio — As of Sept. 30, the School Employees Retirement System of Ohio's total employee benefit assets increased 0.2% to $2.824 billion from $2.817 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Mellon Capital.

Real estate managers: Equitable; J.P. Morgan; NCNB; and Prudential.

Venture capital managers: Cardinal Capital; Morganthaler; and Primus.

The master custodian is Ameritrust; the investment consultants are Ronald A. Karp and Institutional Property Consultants.

Key personnel overseeing the investment management of the fund are Thomas R. Anderson, executive director; Paul M. Kubinsky, director of investments; and Robert G. Cowman, assistant director of investments.

The State Teachers Retirement System of Ohio

	($ millions)
Total assets	18,200
Defined benefit	18,200
Employer DB contributions	755
Benefit payments	1,009
Internally managed	18,200
Hedging devices used:	
Stock options	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	28.5%
Fixed income	34.9%
Cash equivalents	6.5%
Real estate equity	12%
Mortgages	18%
Venture capital	0.1%

COLUMBUS, Ohio — As of Sept. 30, the State Teachers Retirement System of Ohio's total assets increased 0.8% to $18.2 billion from $18.059 billion a year earlier. All assets are defined benefit and internally managed.

The master custodian is Bank One Trust; the investment consultants are Wellington Management and Karsten Realty.

Key personnel overseeing the investment management of the fund are Stephen A. Mitchell, deputy executive director, and Daniel M. Szente, assistant director-investments.

Oklahoma Teachers' Retirement System

	($ millions)
Total assets	2,097
Defined benefit	1,957
Total defined contribution	140
Employer DB contributions	145
Benefit payments	274
Employer DC contributions	0
Internally managed assets:	
Total DB	350
Defined benefit asset mix:	
Stocks	35.5%
Fixed income	50%
Cash equivalents	10%
GICs/BICs	4.5%
Defined contribution asset mix:	
Fixed income	90%
Cash equivalents	10%

OKLAHOMA CITY — As of Sept. 30, the Oklahoma Teachers' Retirement System's total employee benefit assets increased 6.6% to $2.097 billion from $1.968 billion a year earlier. Defined benefit assets increased 5.2% during the same period, to $1.957 billion from $1.861 billion. Defined contribution assets — in a 403(b) plan — increased 12% to $140 million from $125 million.

Equity managers: Domestic — Chicago Corp.; Eagle; Hotchkis and Wiley; Tom Johnson; Mitchell Hutchins; and TCW.

Fixed-income managers: Domestic — Liberty National; Neuberger & Berman; Mellon Bond; and Investment Advisers.

The master custodian is Bankers Trust; the investment consultant is Mercer.

Key personnel overseeing the investment management of the fund are R.L. Kopsa, secretary and treasurer, and Jo D. Witt, director of investments.

Central Pension Fund of the International Union of Operating Engineers

	($ millions)
Total assets	2,114
Defined benefit	2,114
Employer DB contributions	115
Benefit payments	94
Hedging devices used:	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	28.1%
Fixed income	40.1%
Cash equivalents	15.3%
Real estate equity	2.8%
Mortgages	11.2%
GICs/BICs	2.5%

WASHINGTON — As of Sept. 30, the Central Pension Fund of the International Union of Operating Engineers' total employee benefit assets decreased 2.1% to $2.114 billion from $2.159 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Sanford Bernstein; Concord Capital; GAMCO; Husic Capital; Shearson Asset; Southeastern; Wells Fargo Nikko.

Fixed-income managers: Domestic — Duff & Phelps; Loomis, Sayles; STW; Wells Fargo Nikko; Western Asset.

Real estate managers: AFL-CIO; AEW; and ULLICO.

The master trustee is State Street Bank; the investment consultant is Ennis, Knupp.

Key personnel overseeing the investment management of the fund are Jack E. Johnson, director of finance, and Robert A. Birch, assistant director of finance.

Oregon Public Employes Retirement System

	($ millions)
Total assets	9,900
Defined benefit	9,900
Employer DB contributions	560
Benefit payments	400
Internally managed assets	3,000
Defined benefit asset mix:	
Stocks	56.9%
Fixed income	23.7%
Real estate equity	5.4%
Mortgages	5.5%
Venture capital	0.6%
LBOs	7.9%

SALEM, Ore. — As of Sept. 30, the Oregon Public Employes Retirement System's total employee benefit assets decreased 11.4% to $9.9 billion from $11.178 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Batterymarch; BEA; Columbia Management; Cutler; Franklin Asset; Froley, Revy; General American Investors; Harris Associates; Hotchkis and Wiley; Pinnacle Associates; Quest Advisory; Rosenberg Capital; Fayez Sarofim; George Springman; and Thompson/Rubenstein.

International — Cursitor-Eaton; Daiwa; Globe-Finlay; Matushka, Moser; Nomura; Phillipe Advisory; and Rowe Price-Fleming.

The master custodian is First Interstate Bank of Oregon; the global custodian is Morgan Stanley; the investment consultants are Frank Russell and Wilshire.

Key personnel overseeing the investment management of the fund are James George, investment manager; Bill Unvertzagt, fixed income manager; Terry Canby, real estate manager; and Jay Fewel, equity manager.

Owens-Illinois Inc.

	($ millions)
Total assets	2,326
Defined benefit	2,021
401(k)	305
Employer DB contributions	4
Benefit payments	142
Employer DC contributions	5
Hedging devices used:	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	70%
Fixed income	14%
Cash equivalents	7%

Real estate equity	8%
Mortgages	1%
Defined contribution asset mix:	
Other stock	23.6%
Fixed income	2.6%
Cash equivalents	10.2%
GICs/BICs	63.6%

TOLEDO, Ohio — As of Sept. 30, Owens-Illinois Inc.'s total employee benefit assets decreased 12% to $2.326 billion from $2.644 billion a year earlier. Defined benefit assets decreased 13.9% during the same period, to $2.021 billion from $2.346 billion. Defined contribution assets increased 2.3%, to $305 million from $298 million.

Equity managers: Domestic — Barrow, Hanley, Mewhinney & Strauss; DFA; Emerging Growth; Franklin Portfolio; Harbor Capital; Jennison; Lazard Freres; Lieber; and Lincoln Capital.

International — Grantham, Mayo, Van Otterloo; Marsh & Cunningham; and Morgan Grenfell.

Fixed-income managers: Domestic — Jennison; Lazard Freres; PIMCO; State Street Bank; and Trustcorp.

International — Julius Baer.

Real estate managers: AEW; American Agricultural; Boston Co.; Prudential; RPI; RREEF; and Security Capital.

The master trustee is First Wachovia; the global custodian is Chase London; the investment consultant is Richards & Tierney.

Key personnel overseeing the investment management of the fund are Leo A. Wesselmann, senior vice president and chief financial officer; Ronald C. Boller, corporate vice president and director-benefit finance; and Constance L. Souders, manager-employee benefit plan administration.

P

Pacific Gas & Electric Co.

	($ millions)
Total assets	4,172
Defined benefit	2,797
401(k)	1,375
Employer DB contributions	121
Benefit payments	126
Employer DC contributions	30
Hedging devices used:	
Stock options	
Stock index futures	
Defined benefit asset mix:	
Stocks	54%
Fixed income	17%
Cash equivalents	5%
Real estate equity	11%
Foreign stock	13%
Defined contribution asset mix:	
Company stock	90%
Other stock	6%
Cash equivalents	1%
GICs/BICs	3%

SAN FRANCISCO — As of Sept. 30, Pacific Gas & Electric Co.'s total employee benefit assets decreased 2% to $4.172 billion from $4.259 billion a year earlier. Defined benefit assets decreased 8.5% during the same period, to $2.797 billion from $3.056 billion. Defined contribution assets increased 14.3%, to $1.375 billion from $1.203 billion.

Equity managers: Domestic — Bankers Trust; Barrow, Hanley, Mewhinney & Strauss; Dodge & Cox; Geewax Terker; Jundt/Capen; McCowan; Metropolitan Life; Miller, Anderson & Sherrerd; NCM; RCM; and Wells Fargo.

International — Arnhold & S. Bleichroeder; Bankers Trust; Capital Guardian; Oechsle; and Wells Fargo.

Fixed-income managers: Domestic — Sanford Bernstein; Fisher, Francis, Trees & Watts; Metropolitan Life; Miller Anderson & Sherrerd; Prudential; and Wells Fargo.

Real estate managers: Corporate Property Investors; JMB; LaSalle; Metropolitan Life; Prudential; RREEF; and TCW.

The master trustee and global custodian is State Street Bank; the investment consultant is Frank Russell.

Key personnel overseeing the investment management of the fund are Gordon R. Smith, vice president-finance and rates; Jack F. Jenkins-Stork, treasurer; and Sunny Oberoi, director-investments and benefit finance.

Pacific Telesis Group

	($ millions)
Total assets	10,896
Defined benefit	9,124
401(k)	1,772
Employer DB contributions	8
Benefit payments	382
Employer DC contributions	68
Internally managed assets:	
Total DB	151
Total DC	1,193
Hedging devices used:	
Stock options	
Bond options	
Stock index futures	
Fixed-income futures	
Short selling	
Defined benefit asset mix:	
Stocks	60.3%
Fixed income	27.4%
Cash equivalents	1.9%
Real estate equity	9.2%
Venture capital	1.2%
Defined contribution asset mix:	
Company stock	50.6%
Other stock	21.8%
Fixed income	5.7%
GICs/BICs	21.9%

SAN FRANCISCO — As of Sept. 30, Pacific Telesis Group's total employee benefit assets decreased 4.8% to $10.896 billion from the $11.443 billion the Money Market Directory reported the company had as of June 30, 1989. Defined benefit assets decreased 5.7% during the same period, to $9.124 billion from $9.674 billion. Defined contribution assets increased 0.2% to $1.772 billion from $1.769 billion.

Equity managers: Domestic — Delphi Management; Dodge & Cox; Hotchkis and Wiley; IDS Equity; Jundt/Capen; Lord, Abbett; John McStay; Mellon; Morgan Grenfell; Progress Equity; RCM; Sit; United Capital; and Wellington.

International — Acadian; Capital Guardian; DFA; HD International; Morgan Grenfell; Nomura; Oechsle; Rowe Price-Fleming; Sit/Kim; State Street; Walter Scott; Wells Fargo Nikko; and Yamaichi.

Fixed-income managers: Domestic — Dodge & Cox; Fischer, Francis, Trees & Watts; W.R. Huff; PIMCO; Progress Trust; TCW; Weiss Peck & Greer; and Western Asset.

Tactical asset allocation managers: QuantiLogic and Wells Fargo Nikko.

Real estate managers: Copley; JMB; LaSalle; TCW Realty; and Yarmouth.

Venture capital: Warburg Pincus.

The master trustee is Northern Trust; the global trustee is Bank of America; the investment consultant is Frank Russell.

Key personnel overseeing the investment management of the fund are E.D. Taylor, executive director-investment management, and R.P. McGahan, director-pension fund.

J.C. Penney Co. Inc.

	($ millions)
Total assets	2,964
Defined benefit	1,222
Defined contribution	1,742
Employer DB contributions	0
Benefit payments	43
Employer DC contributions	47
Internally managed assets:	
Total DC	805
Defined benefit asset mix:	
Stocks	55%
Fixed income	23%
Cash equivalents	11%
Real estate equity	9%
Venture capital	2%
Defined contribution asset mix:	
Company stock	50%
Other stock	3%
GICs/BICs	47%

DALLAS — As of Sept. 30, J.C. Penney Co. Inc.'s total employee benefit assets decreased 10.4% to $2.964 billion from $3.308 billion a year earlier. Defined benefit assets decreased 9.1% during the same period, to $1.222 billion from $1.345 billion. Defined contribution assets decreased 11.3%, to $1.742 billion from $1.963 billion.

Equity managers: Domestic — Batterymarch; Geocapital; Leiber; Miller, Anderson & Sherrerd; and RCM.

International — Fidelity; Grantham, Mayo, Van Otterloo; and HD International.

Fixed-income managers: Domestic — W.R. Huff; MacKay-Shields; and Neuberger & Berman.

Real estate managers: RREEF and TCW.

Balanced manager: Scudder, Stevens & Clark.

TAA managers: Matrix and Wells Fargo.

The master trustee and global custodian is State Street Bank; the investment consultant is Frank Russell.

Key personnel overseeing the investment management of the fund are Philip Halpern, managing director-benefit investments, and Mary Jane Akerman, portfolio manager.

Pennsylvania State Employes' Retirement System

	($ millions)
Total assets*	9,485
Defined benefit	9,485
Employer DB contributions	581
Benefit payments	567
*as of Aug. 31, 1990	
Defined benefit asset mix:	
Stocks	44.6%
Fixed income	24.7%
Cash equivalents	13.3%
Real estate equity	9.2%
Mortgages	7.2%
Other	1%

HARRISBURG, Pa. — As of Aug. 31, the Pennsylvania State Employes' Retirement System's total employee benefit assets decreased 0.2% to $9.485 billion from $9.504 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Barrow, Hanley, Mewhinney & Strauss; Geewax, Terker; Mellon; McGlinn; Miller, Anderson & Sherrerd; Pilgrim, Baxter, Greig; Provident Investment; SunBank Capital; Trinity; and Wells Fargo Nikko.

International — Miller, Anderson & Sherrerd; Morgan Grenfell; and Scudder, Stevens & Clark.

Fixed-income managers: Domestic — Delaware; W.R. Huff; Latimer & Buck; Mellon Bond; and Miller, Anderson & Sherrerd.

Tactical asset allocation manager: Wells Fargo Nikko.

Real estate managers: Aetna; Alex. Brown Kleinwort Benson; Copley; Corporate Property Investors; John Hancock; Heitman; JMB; Metric; Prudential; PSI; and Sentinel.

Private placement manager: CIGNA.

LBO managers: Brentwood; Code, Hennessy & Simmons; Maverick; Murphy & Fauver; and Russell Rea & Cappala.

Venture capital managers: APA/Fostin; CEO Venture; Fostin Capital; Genesis Seed Fund; Grotech; Keystone; NEPA; Pittsburgh Seed Fund; PNC; Point Venture; TDH; and Zero Stage.

Cash manager: Payden & Rygel.

The master custodian is the Penn-

Superior
Risk-Adjusted
Performance

Isn't that what it's all about?

If you believe that an investment
manager should provide
superior returns for the amount
of risk assumed,
then talk to Barnett.

Equity • Balanced • Fixed Income

Barnett
Bank

Barnett Trust & Investment Services

Institutional Sales Group
P.O. Box 40200
Jacksonville, Florida 32203-0200
(904) 464-2869

SMITH BREEDEN
ASSOCIATES INC.
has been selected by
UNISYS CORPORATION
to manage a targeted duration mortgage-backed security portfolio.

For information on Smith Breeden Associates' services contact: Steve Eason, Partner (214) 871-2575
Overland Park, Kansas • Chapel Hill, North Carolina • Dallas, Texas

sylvania Department of Treasury; the domestic sub-custodian is CoreStates; the global sub-custodian is State Street; the investment consultants are Wilshire and Ronald Karp.

Key personnel overseeing the investment management of the fund are Kenneth G. Mertz II, chief investment officer; Karen Nicely, assistant chief investment officer; and David D. Burnett, administrator-investment office.

Pennsylvania Public School Employes' Retirement System

	($ millions)
Total assets*	17,268
Defined benefit	17,268
Employer DB contributions	990
Benefit payments	851
*as of June 30, 1990	
Internally managed assets	1,100
Hedging devices used:	
Stock options	
Defined benefit asset mix:	
Stocks	36.9%
Fixed income	50%
Cash equivalents	7.3%
Real estate equity	2.8%
Mortgages	1%
Other	2%

HARRISBURG, Pa. — As of June 30, the Pennsylvania Public School Employes' Retirement System's total employee benefit assets increased 11.9% to $17.268 billion from $15.43 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Bankers Trust; Birmingham Capital; Cashman, Farrell; Columbus Circle; Crabbe-Huson; Cutler; Delaware; Dietche & Field; Dreman; Eagle; EAI; Fielding; Gulf; Hudson Capital; MacKenzie Financial; Mellon Bank; Mellon Capital; Miller, Anderson & Sherrerd; Mortgage Government Securities/AIM; Munder; Newbold's; Oppenheimer; Pilgrim Baxter Greig; PNC Financial; Roxbury; Security Pacific; and TCW.

Global — Acadian Financial and WorldInvest.

Fixed-income managers: Domestic — Criterion; Delaware; EAI; Glenmede Trust; Income Research & Management; Loomis, Sayles; Mellon Bank; Miller, Anderson & Sherrerd; Morgan Grenfell; Morgan Stanley; NCM Capital; PIMCO; Pittsburgh National; and Putnam.

Global — Beutel Goodman; London & Bishopgate; Payden & Rygel; PCM International; and WorldInvest.

Balanced manager: Mellon Capital.

Cash managers: London & Bishopgate and PCM International.

Real estate managers: Fidelity Bank; Jones Lang Wootton; and Morgan Stanley.

Mortgage manager: Fidelity Bank.

Convertible manager: Glenmede Trust.

Options managers: Acorn Asset; Darien Capital; Loomis, Sayles; and Oppenheimer Option.

Venture capital managers: APA/Fostin; CEO Venture Fund; CIGNA; Commonwealth Venture Partners; Genesis Seed Fund; Loyalhanna Commonwealth Fund; and NEPA.

The master custodian is First Pennsylvania; the global custodian is State Street; the investment consultant is Evaluation Associates.

The key person overseeing the investment management of the fund is John Lane, acting chief investment officer.

Philip Morris Cos. Inc.

	($ millions)
Total assets	6,983
Defined benefit	4,468
Defined contribution	2,515
Employer DB contributions	na
Benefit payments	224
Employer DC contributions	146
Hedging devices used:	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	67%
Fixed income	26%
Cash equivalents	5%
Real estate equity	2%
Defined contribution asset mix:	
Company stock	33%
Other stock	20%
Fixed income	1%
GICs/BICs	43%
Other	3%

NEW YORK — As of Sept. 30, Philip Morris Cos. Inc.'s total employee benefit assets decreased 6.5% to $6.983 billion from $7.47 billion a year earlier. Defined benefit assets decreased 13.4% during the same period, to $4.468 billion from $5.16 billion. Defined contribution assets increased 8.9%, to $2.515 billion from $2.31 billion.

Equity managers: Domestic — Alliance; Ardsley; Ariel; Sanford Bernstein; Chancellor; Delphi; Eagle; First Wisconsin; Glickenhaus; Neuberger & Berman; RCM; State Street Bank; Trinity; and Wellington.

International — Morgan Grenfell and State Street Bank.

Fixed-income managers: Domestic — Fischer, Francis, Trees & Watts; Loomis, Sayles; PIMCO; and Reams Asset.

Real estate managers: Heitman; JMB; J.P. Morgan; NewCourt; Schroder; and TCW.

Other managers: Blackstone; Consumer Venture Partners; John Hancock Venture; NewCourt; and Sprout.

The master trustee and global custodian is State Street Bank.

Key personnel overseeing the investment management of the fund are David M. Kirby, vice president, and Mary Lee Calimano, director.

Phillips Petroleum Co.

	($ millions)
Total assets	2,450
Defined benefit	450
Total defined contribution	2,000
Thrift or savings	1,400
ESOP	600
Employer DB contributions	0
Benefit payments	10
Employer DC contributions	25
Defined benefit asset mix:	
Stocks	40%
Fixed income	50%
Cash equivalents	4%
Real estate equity	6%
Defined contribution asset mix:	
Company stock	56%
Fixed income	6%
GICs/BICs	38%

BARTLESVILLE, Okla. — As of Sept. 30, Phillips Petroleum Co.'s total employee benefit assets increased 8.9% to $2.45 billion from $2.25 billion a year earlier. Defined benefit assets were unchanged at $450 million. Defined contribution assets increased 11.1% to $2 billion from $1.8 billion.

Equity managers: Domestic — Barrow, Hanley, Mewhinney & Strauss; Travelers; and Wells Fargo.

Fixed-income managers: Domestic — Equitable; J.P. Morgan; and Prudential.

Real estate managers: JMB and Victor Palmieri.

Other managers: Forstmann Little.

The master trustee is Citibank for the defined benefit plan and Bankers Trust for the defined contribution plan.

The key person overseeing the investment management of the fund is R.W. Holsapple, manager-foreign exchange and investments.

PPG Industries Inc.

	($ millions)
Total assets	2,011
Defined benefit	892
401(k)	1,119
Employer DB contributions	0
Benefit payments	78
Employer DC contributions	41
Hedging devices used:	
Stock options	
Bond options	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	41%
Fixed income	59%
Defined contribution asset mix:	
Company stock	58%
Other stock	2%
GICs/BICs	40%

PITTSBURGH — As of Sept. 30, PPG Industries Inc.'s total employee benefit assets decreased 3.6% to $2.011 billion from $2.086 billion a year earlier. Defined benefit assets decreased 13.1% during the same period, to $892 million from $1.026 billion. Defined contribution assets increased 5.6%, to $1.119 billion from $1.06 billion.

Equity managers: Domestic — Capital Growth; Chancellor; Mellon Capital; Neuberger & Berman; and Pinnacle.

International — Schroder and Morgan Stanley.

Fixed-income managers: Domestic — J.P. Morgan.

GIC manager: Bankers Trust.

The master trustee is Mellon Bank; the global custodian is Mellon-Pictet; the investment consultant is Frank Russell.

Key personnel overseeing the investment management of the fund are Charles H. Elmer, director-benefits investment and financing; and Ellen G. Peterson and William R. Dewalt, managers-benefits investment and financing.

Board of Pensions of the Presbyterian Church (U.S.A.)

	($ millions)
Total assets	2,300
Defined benefit	2,300
Employer DB contributions	55
Benefit payments	75
Hedging devices used:	
Stock options	
Bond options	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	53%
Fixed income	27%
Cash equivalents	6%
Real estate equity	10%
GICs/BICs	4%

PHILADELPHIA — As of Sept. 30, the Board of Pensions of the Presbyterian Church's total employee benefit assets decreased 4.2% to $2.3 billion from $2.4 billion a year earlier. All are defined benefit assets.

Equity managers: Domestic — Barrow, Hanley; Capital Guardian; Geocapital; Kirr, Marbach; Lazard Freres; Morgan Grenfell; J.P. Morgan; Quest Advisory; Templeton; Trusco; and Wells Fargo Nikko.

International — Capital Guardian; Marvin and Palmer; PCM International; Templeton International; and Wells Fargo Nikko.

Fixed-income managers: CoreStates; Loomis, Sayles; NCM; PIMCO; Reams; and Standish, Ayer & Wood.

The master trustee and global custodian is Mellon; the investment consultants are Mellon and Callan.

Judith D. Freyer, vice president-investments, treasurer and chief investment officer, oversees investment management of the fund.

Procter & Gamble Co.

	($ millions)
Total assets*	6,028
Defined benefit	171
Total defined contribution	5,857
Profit-sharing	5,770
Thrift or savings	87
Employer DB contributions	3
Benefit payments	2
Employer DC contributions	153
*as of June 30, 1990	
Internally managed assets:	
Total DC	5,770
Defined benefit asset mix:	
Stocks	23%
Fixed income	77%
Defined contribution asset mix:	
Company stock	82.8%
Other stock	1.2%
Cash equivalents	2%
GICs/BICs	14%

CINCINNATI — As of June 30, Procter & Gamble Co.'s total employee benefit assets increased 21.3% to $6.028 billion from $4.97 billion as of Sept. 30, 1989. Defined benefit assets increased 0.6% during the same period, to $171 million from $170 million. Defined contribution assets increased 22%, to $5.857 billion from $4.8 billion.

Equity managers: Domestic — Aetna; Ariel; Babson; Bankers Trust; Sanford Bernstein; Hartford; Northern Trust; and Wells Fargo Nikko.

International — Wells Fargo Nikko.

Fixed-income managers: Domestic — Bankers Trust; Lowe, Brockenbrough; J.P. Morgan; and Northern Trust.

The master trustees are Northern Trust, Bank of New York and Connecticut National Bank; the investment consultant is SEI.

Key personnel overseeing the investment management of the fund are John Smith, pension manager; George Gibson, vice president-treasurer; and Joe R. Lawhead, assistant treasurer.

The Prudential Insurance Co. of America

	($ millions)
Total assets	5,856
Defined benefit	4,297
Total defined contribution	1,559
Thrift or savings	1,390
401(k)	135
Other	34
Employer DB contributions	0
Benefit payments	[illegible]
Employer DC contributions	34
Internally managed assets:	
Total DB	4,297
Total DC	1,550
Defined benefit asset mix:	
Stocks	38.3%
Fixed income	28.6%
Cash equivalents	19.5%
Real estate equity	12.8%
Other	0.8%
Defined contribution asset mix:	
Other stock	14.6%
GICs/BICs	85.4%

NEWARK, N.J. — As of Sept. 30, The Prudential Insurance Co. of America's total employee benefit assets declined 3.1% to $5.856 billion from $6.042 billion a year earlier. Defined benefit assets declined by 8.4% during the same period to $4.297 billion from $4.691 billion. Defined contribution assets increased by 15.4% to $1.559 billion from $1.351 billion.

All assets are managed by Prudential affiliates.

The investment consultant is Prudential Diversified.

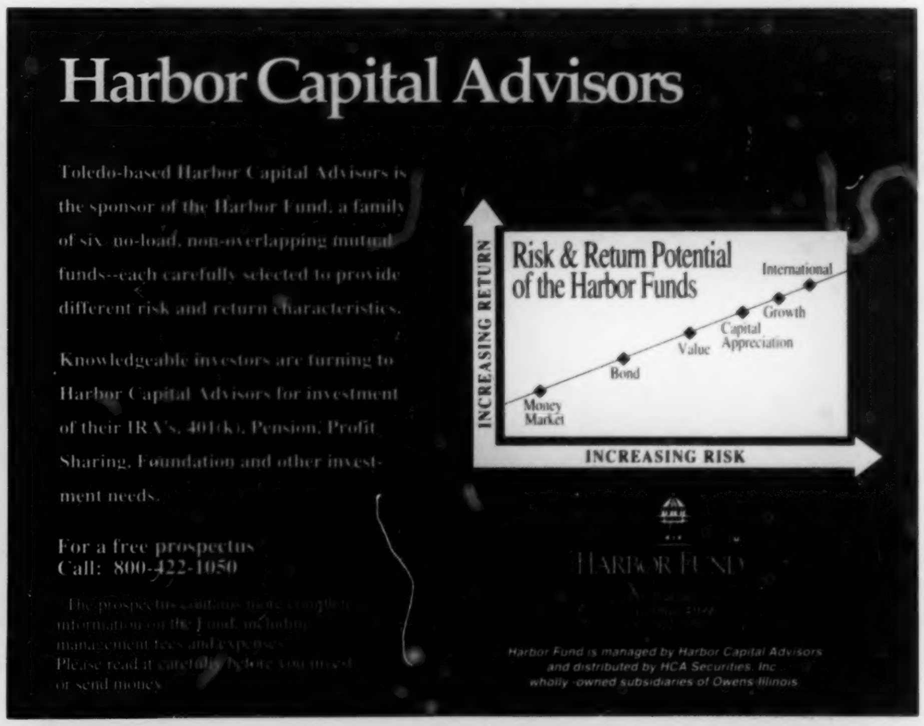
Key personnel overseeing the investment management of the fund are Paul C. Guidone, managing director and chief investment officer; James Scott, managing director; and Michael A. Lenarcic, director-portfolio management.

R

Raytheon Co.

	($ millions)
Total assets	2,982
Defined benefit	2,064
Total defined contribution	918
401(k)	848
ESOP	70
Employer DB contributions	65
Benefit payments	81
Employer DC contributions	54
Defined benefit asset mix:	
Stocks	69%
Fixed income	29%
Cash equivalents	1%
Real estate equity	1%
Defined contribution asset mix:	
Company stock	9%
Other stock	17%
GICs/BICs	74%

LEXINGTON, Mass. — As of Sept. 30, Raytheon Co.'s total employee benefit assets decreased 2.2% to $2.982 billion from $3.05 billion a year earlier. Defined benefit assets decreased 9.8% during the same period, to $2.064 billion from $2.288 billion. Defined contribution assets increased



Harbor Capital Advisors

Toledo-based Harbor Capital Advisors is the sponsor of the Harbor Fund, a family of six no-load, non-overlapping mutual funds--each carefully selected to provide different risk and return characteristics.

Knowledgeable investors are turning to Harbor Capital Advisors for investment of their IRA's, 401(k), Pension, Profit Sharing, Foundation and other investment needs.

For a free prospectus
Call: 800-422-1050

The prospectus contains more complete information on the Fund, including management fees and expenses. Please read it carefully before you invest or send money.

Harbor Fund is managed by Harbor Capital Advisors and distributed by HCA Securities, Inc., wholly-owned subsidiaries of Owens-Illinois

20.5%, to $918 million from $762 million.

Equity managers: Domestic — Aiyer Investments; Bankers Trust; Batterymarch; Dewey Square; INVESCO; Loomis, Sayles; Matrix; PanAgora; Rosenberg; State Street Research; and Sun Bank.

Fixed-income managers: Loomis, Sayles and Richmond Capital.

Real estate managers: Aetna and John Hancock.

The master trustee is Boston Safe.

Key personnel overseeing the investment management of the fund are Herbert Deitcher, senior vice president-treasurer; W. Bruce Livingston, manager-employee benefits financing; and Steven S. DeMeo, senior benefits financing specialist.

Employee Retirement System of Rhode Island

	($ millions)
Total assets	2,322
Defined benefit	2,322
Employer DB contributions	125
Benefit payments	120
Internally managed assets	205
Hedging devices used:	
Stock options	
Bond options	
Defined benefit asset mix:	
Stocks	42.7%
Fixed income	32.9%
Cash equivalents	17.6%
Real estate equity	4.2%
Other	2.6%

PROVIDENCE, R.I. — As of Sept. 30, the Employee Retirement System of Rhode Island's total employee benefit assets increased 1% to $2.322 billion from $2.3 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Bankers Trust; Boston Co.; Fleet National Bank; and Provident.

International — Alliance; Nomura; and Schroder.

Fixed-income managers: Domestic — Brown Brothers Harriman; Fidelity Management; and Fleet National.

Real estate managers: Aetna; Heitman; Lehndorff & Babson; and Phoenix.

Other manager: Crossroads.

State Street Bank is the master trustee and the global custodian; the investment consultant is Wilshire.

Key personnel overseeing the investment management of the fund are Anthony J. Solomon, general treasurer; Jerome F. Williams, deputy general treasurer; and Stephen F. Iafrate, fiscal manager/administrative officer.

RJR Nabisco Inc.

	($ millions)
Total assets	3,364
Defined benefit	2,400
Total defined contribution	964
Defined benefit asset mix:	
Stocks	57%
Fixed income	30%
Cash equivalents	6%
Real estate equity	7%

NEW YORK — As of Sept. 30, RJR Nabisco Inc.'s total employee benefit assets decreased 18% to $3.364 billion from $4.1 billion a year earlier. Defined benefit assets decreased 11.1% during the same period, to $2.4 billion from $2.7 billion. Defined contribution assets decreased 31.1%, to $964 million from $1.4 billion.

The key person overseeing the investment management of the fund is John W. MacMurray, senior director-pension administration.

Rockwell International Corp.

	($ millions)
Total assets*	9,715
Defined benefit	7,115
Thrift or savings	2,600
Employer DB contributions	na
Benefit payments	na
Employer DC contributions	na
*P&I estimate	

PITTSBURGH — As of Sept. 30, Rockwell International Corp.'s total employee benefit assets were $9.715 billion, according to a *Pensions & Investments* estimate. Defined benefit assets are estimated at $7.115 billion, and defined contribution assets, $2.6 billion.

The trustees for the savings plans are First Interstate Bank of California and Vanguard.

Key personnel overseeing the investment management of the fund are Lee H. Cramer, vice president and treasurer, and Susan Leathers, director-pension asset management.

S

San Francisco City & County Employees' Retirement System

	($ millions)
Total assets*	4,331
Defined benefit	4,179
401(k)	152
Employer DB contributions	229
Benefit payments	199
Employer DC contributions	na
*as of June 30, 1990	
Internally managed assets:	
Total DB	1,950
Defined benefit asset mix:	
Stocks	32%
Fixed income	51%
Cash equivalents	11.7%
Real estate equity	5%
Other	0.3%

SAN FRANCISCO — As of June 30, the San Francisco City & County Employees' Retirement System's total employee benefit assets increased 10.6% to $4.331 billion from $3.916 billion a year earlier. Defined benefit assets increased 10.2% during the same period, to $4.179 billion from $3.792 billion. Defined contribution assets increased 21.6%, to $152 million from $125 million.

Equity managers: Domestic — Hanson; McCullough Andrews & Cappiello; Nicholas-Applegate; RCM; and Trinity.

International — Capital Guardian and Oechsle.

Fixed-income managers: Domestic — Axe-Houghton; Caywood-Christian; MacKay-Shields; Miller, Anderson & Sherrerd; Scudder, Stevens & Clark; and TCW.

International — Brinson Partners and Warburg Investment.

Real estate managers: Coldwell Banker; JMB; Lehndorff & Babson; Metric; RREEF; and Schroder.

Venture capital: Crossroads.

The master trustee and global custodian is Bankers Trust; the investment consultants are Callan; Townsend; and Lewis, Bailey.

Key personnel overseeing the investment management of the fund are Kenneth L. Shaffer, chief investment officer; and Carolyn Hamilton and Jack Montgomery, portfolio managers.

Sears, Roebuck and Co.

	($ millions)
Total assets	7,186
Defined benefit	2,502
Defined contribution	4,684
Employer DB contributions	na
Benefit payments	na
Employer DC contributions	na
Internally managed assets:	
Total DB	2,048
Total DC	4,518
Hedging devices used:	
Stock options	
Stock index futures	
Defined benefit asset mix:	
Stocks	56%
Fixed income	29%
Cash equivalents	5%
Real estate equity	4%
Other	6%
Defined contribution asset mix:	
Company stock	39%
Other stock	22%
Fixed income	15%
Cash equivalents	24%

CHICAGO — As of Sept. 30, Sears, Roebuck and Co.'s total employee benefit assets decreased 11.3% to $7.186 billion from $8.101 billion a year earlier. Defined benefit assets decreased 15.9% during the same period, to $2.502 billion from $2.974 billion. Defined contribution assets, in a profit-sharing plan with a 401(k) feature, decreased 8.6%, to $4.684 billion from $5.127 billion.

Equity managers: Domestic — Rosenberg Institutional; Sears Investment Management; and State Street.

International — Acadian; Capital Guardian; HD International; Oechsle; and State Street.

Fixed-income manager: Sears Investment Management.

Real estate manager: AEW.

The master trustee and global custodian is Continental Bank.

Key personnel overseeing the investment management of the fund, all with Sears Investment Management Co., are David V. Dootson, president; Michael Norton, vice president-fixed income; James M. Smith, vice president-venture capital; and David H. Williams, vice president-equities.

Top 200 funds with assets in venture capital*

Fund	($ millions)
Washington State Board	407
AT&T	406
Ameritech	305
State of Michigan	257
Minnesota State Board	255
General Electric	241
GTE	178
University of California	156
Los Angeles County	145
Illinois Teachers	119
Pacific Telesis	107
New York State & Local	103
Unisys	98
United Technologies	90
Sears, Roebuck	87
Westinghouse Electric	86
Chicago Municipal	84
Southwestern Bell	82
Illinois Municipal	79
Honeywell	77
Du Pont	71
Pennsylvania State	69
Pennsylvania Schools	68
Colorado Public Employees	66
Connecticut Trust Funds	66
Delaware State	66
Exxon	65
Oregon Public Employes	65
Delta Air Lines	60
Wisconsin State Board	60
Chevron	55
ALCOA	50
Ford Motor	50
S. California Edison	50
Owens-Illinois	43
American Electric Power	41
Utah State	40
Iowa Public Employees	38
Atlantic Richfield	37
BP America	35
Illinois State Board	35
Philip Morris	35
Prudential Insurance	35
Deere	34
Chicago Police	32
World Bank	32
Virginia Retirement	31
Grumman	29
Ohio State Teachers	28
New York State Teachers	26
Ohio School Employees	25
Xerox (DB)	21
Nat'l Electrical Contractors	20
J.C. Penney	19
TRW	19
North Carolina	18
Ohio Public Employees	17
Johnson & Jo[illegible]n	14
Minnesota Mining & Mfg.	12
Ohio Police & Firemen	12
Rhode Island	12
San Francisco City/County	12
Nevada Public Employees	10
Textron	9
California State Teachers	7
Armco	6
Inland Steel	5
Tenneco	5
S. New England Telephone	3
Xerox (DC)	2
Total	**5,022**

*All are defined benefit funds unless otherwise noted

International Sheet Metal Workers

	($ millions)
Total assets*	1,686
Defined benefit	1,686
Employer DB contributions	83
Benefit payments	na
*From Money Market Directory	

WASHINGTON — As of June 30, the International Sheet Metal Workers' total employee benefit assets increased 7% to $1.686 billion from $1.576 billion a year earlier, according to the Money Market Directory. All assets are defined benefit.

The key person overseeing the investment management of the fund is Walter Carlough, administrator.

Shell Oil Co.

	($ millions)
Total assets*	7,507
Defined benefit	3,660
Total defined contribution	3,847
Thrift or savings	3,462
401(k)	385
Employer DB contributions	na
Benefit payments	na
Employer DC contributions	na
*P&I estimate	

HOUSTON — As of Sept. 30, *Pensions & Investments* estimates Shell Oil Co.'s employee benefit assets totaled $7.507 billion. The estimate is based on $7.811 billion the 1991 Money Market Directory reports the company having as of December 1989. The estimate represents a 4.2% decrease from the $7,84 billion Shell reported as of Sept. 30, 1989. Defined benefit assets decreased 1.1% to an estimated $3.660 billion from $3.7 billion. Defined contribution assets declined 7% to an estimated $3.847 billion from $4.14 billion.

Leonard S. Chaikind, pension administrator, oversees investment management of the fund.

South Carolina Retirement System

	($ millions)
Total assets*	7,728
Defined benefit	7,728
Employer DB contributions	329
Benefit payments	345
*as of June 30, 1990	
Internally managed assets	7,728
Defined benefit asset mix:	
Fixed income	93%
Cash equivalents	7%

COLUMBIA, S.C. — As of June 30, the South Carolina Retirement System's total employee benefit assets increased 9.3% to $7.728 billion from $7.072 billion a year earlier. All assets are defined benefit and managed internally.

Key personnel overseeing the investment management of the fund are Grady L. Patterson, state treasurer; Sandy Huey, deputy state treasurer; and Chuck Sanders, senior assistant state treasurer.

Southern Co. Services Inc.

	($ millions)
Total assets	3,350
Defined benefit	2,400
Total defined contribution	950
401(k)	700
ESOP	250
Employer DB contributions	0
Benefit payments	70
Employer DC contributions	45
Hedging devices used:	
Stock options	
Bond options	
Stock index futures	
Fixed-income futures	

ATLANTA — As of Sept. 30, Southern Co. Services Inc.'s total employee benefit assets increased 8.1% to $3.35 billion from $3.1 billion a year earlier. Defined benefit assets remained the same at $2.4 billion. Defined contribution assets increased 35.7%, to $950 million from $700 million.

Equity managers: Domestic — AmSouth Bank; INVESCO; Jundt/Capen; Lieber; Miller, Anderson & Sherrerd; Northern Capital Management; Spears, Benzak, Salomon & Farrell; and Strong/Corneliuson.

Fixed-income managers: Domestic — Discount Corp. Advisers; First Wachovia; and Trusco Capital.

The master trustee is Bankers Trust.

The key person overseeing the investment management of the fund is David Prince, assistant treasurer.

Annuity Board of the Southern Baptist Convention

	($ millions)
Total assets	2,680
Defined benefit	770
Total defined contribution	1,910
Other	1,910
Employer DB contributions	0
Benefit payments	32
Employer DC contributions	na
Internally managed assets:	
Total DB	56
Hedging devices used:	
Stock options	
Defined benefit asset mix:	
Stocks	48.1%
Fixed income	36.8%
Cash equivalents	0.2%
Real estate equity	2.5%
Mortgages	2.3%
GICs/BICs	10.1%
Defined contribution asset mix:	
Stock	19%
Fixed income	14%
Cash equivalents	2%
GICs/BICs	65%

DALLAS — As of Sept. 30, the Annuity Board of the Southern Baptist Convention's total employee benefit assets increased 4.7% to $2.68 billion from $2.559 billion a year earlier. Defined benefit assets decreased 6.3% during the same period, to $770 million from $822 million. Defined contribution assets, all in 403(b) plans, increased 10%, to $1.91 billion from $1.737 billion.

Equity managers: Domestic — Barrow, Hanley; Capital Guardian; Eagle; GAMCO; Ganucheau, Stupfel; JMC; Luther King; Munder; Provident; RCM; Sasco; Scudder, Stevens; Sirach.

International — PCM International and Swiss Bank.

Fixed-income managers: Sanford C. Bernstein; Loomis, Sayles; Putnam; J.P. Morgan; STW; and Western Asset.

The master trustee and global custodian is Northern Trust; the investment consultant is SEI.

John R. Jones, senior vice president-director of investments, oversees investment management of the fund.

Southern California Edison

	($ millions)
Total assets	2,300
Defined benefit	1,500
401(k)	800
Employer DB contributions	50
Benefit payments	70
Employer DC contributions	40
Internally managed assets:	
Total DB	125
Hedging devices used:	
Stock options	
Bond options	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	62%
Fixed income	23%
Cash equivalents	1%
Real estate equity	5%
GICs/BICs	5%
Venture capital	4%
Defined contribution asset mix:	
Company stock	76%
Other stock	6%
Fixed income	2%
Cash equivalents	4%
GICs/BICs	7%
Balanced asset fund	5%

ROSEMEAD, Calif.— As of Sept. 30, Southern California Edison's total employee benefit assets decreased 3.4% to $2.3 billion from $2.38 billion a year earlier. Defined benefit assets decreased 5.1% during the same period, to $1.5 billion from $1.58 billion. Defined contribution assets remained the same at $800 million.

Equity managers: Domestic — DFA; Dodge & Cox; Hotchkis and Wiley; Jundt/Capen; Mellon; Pacific Financial; RCM; Rosenberg Institutional; and Sit.

International - Acadian; Batterymarch; TCW; and Warburg.

Fixed income managers: Domestic — NCM, PIMCO and RCM.

Real estate managers: Equitable; JMB; LaSalle; Pacific Mutual; and TCW.

Options manager: MCQ.

Overwriting manager: Bankers Trust.

Cash manager: Payden & Rygel.

The master trustee is Security Pacific; the global custodian is Mitsubishi; the investment consultant is Frank Russell.

Rick Yamamoto, manager-investments, is the key person overseeing the investment management of the fund.

Southern California UFCW & Food Employers Joint Pension Trust Fund

	($ millions)
Total assets	2,073
Defined benefit	2,073
Employer DB contributions	125
Benefit payments	117
Internally managed assets	30
Hedging devices used:	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	35%
Fixed income	45%
Cash equivalents	3%
Real estate equity	5%
GICs/BICs	12%

CYPRESS, Calif. — As of Sept. 30, the Southern California United Food and Commercial Workers & Food Employers Joint Pension Trust Fund's total employee benefit assets decreased 2.8% to $2.073 billion from $2.133 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Cramblitt & Carney; Lazard Freres; Oppenheimer; TCW; and Wells Fargo.

Fixed-income managers: Domestic — PIMCO; PIMCO Futures; Putnam; and Weiss, Peck & Greer.

Real estate managers: LaSalle; Lehndorff & Babson; McMorgan; Prudential; Smith Barney Birtcher; and TCW.

Short-term manager: Patterson Capital.

GIC manager: Morley Capital.

The master trustee is First Interstate; the investment consultants are Institutional Property Consultants and R.H. Kuhns.

Key personnel overseeing the investment management of the fund are P. Colleen Thompson, administrator, and Joel F. Meltz, controller.

Southern New England Telephone Co.

	($ millions)
Total assets	1,729
Defined benefit	1,460
Total defined contribution	269
Employer DB contributions	0
Benefit payments	61
Employer DC contributions	11
Hedging devices used:	
Stock options	
Stock index futures	
Defined benefit asset mix:	
Stocks	54%
Fixed income	35%
Cash equivalents	1%
Real estate equity	7%
Other	3%
Defined contribution asset mix:	
Company stock	22%
Other stock	5%
GICs/BICs	73%

NEW HAVEN, Conn. — As of Sept. 30, Southern New England Telephone Co.'s total employee benefit assets decreased 9.6% to $1.729 billion from $1.912 billion a year earlier. Defined benefit assets decreased almost 11% during the same period to $1.46 billion from $1.64 billion. Defined contribution assets decreased [illegible]1% to $269 million from $272 million.

Equity managers: Domestic — American National Bank; Analytic Investment; Barrow, Hanley; Connecticut National Bank; Moran Asset; Wellington; and Wells Fargo.

International — *Mercator; PCM; and* Wells Fargo.

Fixed-income managers: Domestic — Connecticut National; Dreyfus; Equitable; Putnam; STW; and Wells Fargo.

Real estate managers: CIGNA; JMB; LaSalle; Schroder; and Sentinel.

Other managers: Columbine Venture Funds; Hellman & Friedman; Recovery Equity Partners; Triumph Capital; and Rimco Oil & Gas.

The master trustees are Boston Safe Deposit for the defined benefit plan and Bankers Trust for the defined contribution plans. The global custodian is Morgan Stanley for the defined benefit plan.

The key person overseeing the investment management of the fund is Katherine Griswold, director-pension fund.

Southwestern Bell Corp.

	($ millions)
Total assets*	8,303
Defined benefit	7,082
Defined contribution	1,221
Employer DB contributions	0
Benefit payments	278
Employer DC contributions	5

**as of June 30, 1990*

Defined benefit asset mix:	
Stocks	60%
Fixed income	28%
Cash equivalents	1%
Real estate equity	9%
Other	2%
Defined contribution asset mix:	
Company stock	41%
Other stock	19%
Fixed income	3%
GICs/BICs	34%
Loans	3%

ST. LOUIS — As of June 30, Southwestern Bell Corp.'s total employee benefit assets decreased 0.4% to $8.303 billion from $8.334 billion as of Sept. 30, 1989. Defined benefit assets decreased 1.2% during the same period, to $7.082 billion from $7.166 billion. Defined contribution assets increased 4.5% to $1.221 billion from $1.168 billion.

Equity managers: Domestic — Goldman, Sachs; Franklin; Geocapital; Jennison; NFJ Investment; Nicholas-Applegate; Pilgrim Baxter Greig; Rosenberg; Sasco; Southeastern Asset; and Wells Fargo Nikko.

International — IDS; Nomura; and Wells Fargo Nikko.

Fixed-income managers: Domestic — Jennison and Mississippi Valley.

Real estate manager: Heitman.

Other managers: Bigler/Crossroads; Brinson; and NCNB-Texas.

The master trustee is NCNB-Texas; the global custodian is Chase Manhattan; the investment consultant is Buck.

Key personnel overseeing the investment management of the fund are M.A. Devine, director-pension investments, and C. Weaver, director-pension fund.

State Farm Mutual Automobile Insurance Co.

	($ millions)
Total assets	3,240
Defined benefit	2,498
401(k)	742
Employer DB contributions	na
Benefit payments	na
Employer DC contributions	na

BLOOMINGTON, Ill. — As of Sept. 30, State Farm Mutual Automobile Insurance Co. reported total employee benefit assets of $3.24 billion, an increase of 5.1% from a year earlier when its assets were estimated to be $3.084 billion. It reported defined benefit assets of $2.498 billion and defined contribution assets of $742 million, both as of Sept. 30. No comparative breakdown of the two types of funds was available for the previous year.

Reprints of articles appearing in *Pensions & Investments* are available.
For information, contact:

Sabine Schramm
Pensions & Investments
740 N. Rush St.,
Chicago, Ill. 60611;
(312) 649-5407

T

Teachers Insurance and Annuity Association - College Retirement Equities Fund

	($ millions)
Total assets	83,100
Total defined contribution	83,100
Other	83,100
Employer DC contributions	3,700
Internally managed assets	83,100
Defined contribution asset mix:	
Other stock	36.9%
Fixed income	51.4%
Cash equivalents	4.4%
Real estate equity	5.5%
Other	1.8%

NEW YORK — As of Sept. 30, the Teachers Insurance and Annuity Association — College Retirement Equities Fund's total employee benefit assets increased 2.6% to $83.1 billion from $81 billion a year earlier. All assets are in annuity plans, and are managed internally.

For TIAA, the master trustees are Citibank and Morgan Guaranty; for CREF, the master trustees are Bankers Trust and Morgan Guaranty. The global custodians are Chase Manhattan and Bankers Trust.

Key personnel overseeing the investment management for TIAA are J. Daniel Lee Jr., executive vice president; and David B. Bullet and John A. Somers, senior vice presidents. Key personnel overseeing CREF investments are James S. Martin, executive vice president; and C. Oscar Morong Jr. and Virgil H. Cumming, senior vice presidents.

Teamsters, Central States, Southeast and Southwest Areas Pension Fund

	($ millions)
Total assets	9,398
Defined benefit	9,398
Employer DB contributions	735
Benefit payments	963
Internally managed assets	69
Hedging devices used:	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	31.9%
Fixed income	52.7%
Cash equivalents	15.3%
Real estate equity	0.1%

ROSEMONT, Ill. — As of Sept. 30, the Teamsters, Central States, Southeast and Southwest Areas Pension Fund's total employee benefit assets decreased 4.6% to $9.398 billion from $9.849 billion a year earlier. All assets are defined benefit.

Equity managers: BEA; Equitable; Hellman-Jordan; INVESCO; Lynch & Mayer; Mellon; Provident; Putnam; TCW; and Wells Fargo Nikko.

Fixed-income managers: Bankers Trust; Fiduciary Trust; Lincoln Capital; MacKay Shields; Mellon; Miller, Anderson; and T. Rowe Price.

Real estate managers: Eastdil; Karsten; O'Connor; and Yarmouth.

The master trustee is Mellon; the investment consultant is Lewis, Bailey.

Morgan Stanley is named fiduciary of the fund. Key personnel at Teamsters, Central States overseeing the investment management of the fund are Robert M. Warner, director-financial services, and Mark F. Angerame, manager-financial group.

Teamsters, Western Conference Pension Trust

	($ millions)
Total assets	9,292
Defined benefit	9,292
Employer DB contributions	540
Benefit payments	640
Hedging devices used:	
Bond options	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	17.1%
Fixed income	54.2%
Cash equivalents	3.7%
Real estate equity	8.5%
Mortgages	0.5%
GICs/BICs	0.7%
Annuities	15.3%

SEATTLE — As of Sept. 30, the Western Conference of Teamsters Pension Trust's defined benefit assets increased 2.3%, to $9.292 billion from the $9.084 billion it was estimated the fund had a year earlier.

Equity managers: Domestic — Fidelity; Mellon; and Prudential.

Fixed income managers: PIMCO and Prudential.

Real estate managers: Aetna; AEW; Phoenix Mutual; and Prudential.

The consultant is A.D. Biller.

Key personnel overseeing the investment management of the fund are Owen Bennett, co-chairman; Joe Ballew, co-chairman; and John Bacon, chairman-investment committee.

Tenneco Inc.

	($ millions)
Total assets	2,824
Defined benefit	1,925
Thrift or savings	899
Employer DB contributions	na
Benefit payments	na
Employer DC contributions	na
Internally managed assets:	
Total DC	838
Hedging devices used:	
Stock index futures	
Defined benefit asset mix:	
Stocks	66%
Fixed income	33%
Cash equivalents	2%
Defined contribution asset mix:	
Company stock	17%
Other stock	4%
Fixed income	3%
Cash equivalents	76%

HOUSTON — As of Sept. 30, Tenneco Inc.'s total employee benefit assets decreased 1.8% to $2.824 billion from $2.877 billion a year earlier. Defined benefit assets decreased 7.2% during the same period, to $1.925 billion from $2.074 billion. Defined contribution assets increased 12%, to $899 million from $803 million.

Equity managers: Domestic — Sanford C. Bernstein; Capstone; Delaware; Hotchkis & Wiley; IDS; and Fayez Sarofim.

International — Deutsche Asset and Morgan Stanley.

Fixed-income managers: Domestic — Capstone; Fischer, Francis; J.P. Morgan; State Street Research; and STW.

Other managers: Bridge Capital.

The master trustee is Bankers Trust; the investment consultant is Callan.

The key person overseeing the investment management of the fund is Richard A. Robinson, executive director-investments.

Tennessee Consolidated Retirement System

	($ millions)
Total assets	8,148
Defined benefit	8,148
Employer DB contributions	160
Benefit payments	40
Internally managed assets	8,148
Defined benefit asset mix:	
Stocks	31.1%
Fixed income	55.3%
Cash equivalents	5.3%
Other	8.3%

NASHVILLE, Tenn. — As of Sept. 30, the Tennessee Consolidated Retirement System's total employee benefit assets increased 0.9% to $8.148 billion from $8.075 billion a year earlier. All assets are defined benefit and managed internally.

The master custodian and global custodian is Chase; the investment consultant is Callan.

Key personnel overseeing the investment management of the fund are Charles H. Webb, chief investment officer; Marshall Cox, bond portfolio manager; and Jeremy Conlin, stock portfolio manager.

Tennessee Valley Authority Retirement System

	($ millions)
Total assets	2,834
Defined benefit	2,623

Top 200 funds with assets in mortgage-backed securities

Defined benefit

Fund	($ millions)
California Employees	7,600
New York State & Local	4,543
Texas Teachers	3,700
California State Teachers	3,689
New Jersey	3,656
Ohio Employees	3,400
Ohio State Teachers	3,400
Pennsylvania School	2,445
Teamsters, Central States	2,000
North Carolina	1,854
Texas Employees	1,590
South Carolina	1,552
New York State Teachers	1,443
Du Pont	1,348
State of Michigan	1,298
General Electric	1,200
Los Angeles County	1,121
Bethlehem Steel	1,030
Missouri Public School	928
Washington State Board	901
USX	810
Colorado Employees	710
Tennessee Consolidated	630
Nevada Employees	623
Iowa Employees	591
Ohio School Employees	580
Connecticut Trust Funds	500
Alabama Retirement	487
Louisiana Teachers	400
Ohio Police & Firemen	380
Kentucky Teachers	375
Utah State	363
Oklahoma Teachers	350
Illinois State Board	340
Maryland State	335
Armco	333
General Dynamics	328
Indiana Employees	325
Louisiana Employees	260
Los Angeles Fire & Police	253
Boilermaker-Blacksmith	241
Exxon	198
Los Angeles Water & Power	182
New Mexico Employees	180
Chicago School	176
Chicago Municipal	171
New York City	164
Delaware State	138
Commonwealth Edison	121
Bakery & Confectionery	114
Ameritech	106
Grumman	103
United Methodist Church	103
Unisys	100
Tennessee Valley Authority	99
Monsanto	89
Idaho Employees	72
Delta Air Lines	50
Atlantic Richfield	47
K mart	46
Minnesota Mining & Mfg.	41
Kansas Employees	39
Presbyterian Church	30
Owens-Illinois	25
Operating Engineers	20
Arkansas Teachers	19
American Stores	9
Hawaii Employees	7
Nat'l Rural Electric Co-op	5
Total	**[illegible]**

Defined contribution

Fund	($ millions)
TIAA-CREF	2,200
Texas County & District	1,456
General Electric	500
Evangelical Lutheran	340
Indiana Teachers	300
Indiana Employees	125
Halliburton	119
Bechtel Power	101
American Stores	100
United Methodist Church	85
Oklahome Teachers	42
UMWA	2
Total	**5,373**

Total defined contribution	211
Thrift or savings	136
401(k)	75
Employer DB contributions	44
Benefit payments	182
Employer DC contributions	0
Hedging devices used:	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	53%
Fixed income	40%
Cash equivalents	6%
GICs/BICs	1%
Defined contribution asset mix:	
Other stock	60%
Fixed income	40%

KNOXVILLE, Tenn. — As of Sept. 30, the Tennessee Valley Authority Retirement System's total employee benefit assets decreased 8.3% to $2.834 billion from $3.09 billion a year earlier. Defined benefit assets decreased 9.4% during the same period, to $2.623 billion from $2.894 billion. Defined contribution assets increased 7.7%, to $211 million from $196 million.

Equity managers: Domestic — DIA; Geewax, Terker; Mellon Capital; Morgan Grenfell; NCM; Rosenberg Institutional; and Sun Bank.

Fixed-income managers: Domestic — Duff & Phelps; W.R. Huff; Lord, Abbett; and PIMCO.

The master trustee is Mellon Bank; the investment consultant is Wilshire.

Larry Edwards, executive secretary, oversees the investment management of the fund.

Texaco Inc.

	($ millions)
Total assets	3,300
Defined benefit	1,300
Total defined contribution	2,000
ESOP	500
Other	1,500
Employer DB contributions	58
Benefit payments	140
Employer DC contributions	na
Internally managed assets:	
Total DB	110
Hedging devices used:	
Stock options	
Stock index futures	

WHITE PLAINS, N.Y. — As of Sept. 30, Texaco Inc.'s total employee benefit assets increased 3.1% to $3.3 billion from $3.2 billion a year earlier. Defined benefit assets were unchanged at $1.3 billion. Defined contribution assets increased 5.3% to $2 billion from $1.9 billion.

Equity managers: Alliance; Mellon Capital; J.P. Morgan; and State Street Bank.

Fixed-income managers: W.R. Lazard and J.P. Morgan.

Real estate managers: Aetna; Copley; Equitable; J.P. Morgan; Prudential; and Travelers.

The master trustee is Chase Manhattan; the investment consultant is Wilshire.

Shelby Faber, financial director, oversees investment management of the fund.

Texas County and District Retirement System

	($ millions)
Total assets	2,297
Defined contribution	2,297
Employer DC contributions	na
Internally managed	2,297
Defined contribution asset mix:	
Fixed income	99%
Cash equivalents	1%

AUSTIN, Texas — As of Sept. 30, the Texas County and District Retirement System's total assets increased 14.9% to $2.297 billion from $2 billion a year earlier. All assets are defined contribution and managed internally.

Key personnel overseeing the investment management of the fund are J. Robert Brown, executive director, and Ronald Schultz, investment consultant.

Employees Retirement System of Texas

	($ millions)
Total assets	6,242
Defined benefit	6,242
Employer DB contributions	174
Benefit payments	250
Internally managed assets	6,242
Defined benefit asset mix:	
Stocks	26%
Fixed income	73%
Cash equivalents	1%

AUSTIN, Texas — As of Sept. 30, the Employees Retirement System of Texas' total employee benefit assets increased 4.6% to $6.242 billion from $5.969 billion a year earlier. All assets are defined benefit and managed internally.

Equity adviser: INVESCO.

Fixed-income adviser: Duff & Phelps.

The master custodian is NCNB Texas.

Key personnel overseeing the investment management of the fund are Charles D. Travis, executive director, and Nancy G. Goerdel, deputy director for investments.

Texas Municipal Retirement System

	($ millions)
Total assets*	2,400
Defined contribution	2,400
Employer DC contributions	na
**book value*	
Internally managed assets	2,400
Defined contribution asset mix:	
Fixed income	100%

AUSTIN, Texas — As of Sept. 30, The Texas Municipal Retirement System's total employee benefit assets increased 9.1% to $2.4 billion from $2.2 billion a year earlier. All assets are defined contribution and managed internally.

The master custodian is First City Bank, Austin; the investment consultant is Duff & Phelps.

Key personnel overseeing the investment management of the fund are Jimmie L. Mormon, director, and Preston G. Craig, investment officer.

Teacher Retirement System of Texas

	($ millions)
Total assets	23,734
Defined benefit	23,724
Employer DB contributions	714
Benefit payments	893
Internally managed assets	23,734
Defined benefit asset mix:	
Stocks	41.3%
Fixed income	48%
Cash equivalents	0.8%
Real estate equity	9.9%

AUSTIN, Texas — As of Sept. 30, the Teacher Retirement System of Texas' total employee benefit assets increased 1% to $23.734 billion from $23.5 billion a year earlier. All assets are in defined benefit plans and are internally managed.

The master custodian is Chemical Bank; the investment consultant is Wellington.

Key personnel overseeing the investment management of the fund are Jack Cooper, acting chief investment officer; Herman Martina, investment officer-fixed income; George Reagan, investment officer-equities; Gene Reichman, investment officer-real estate.

Textron Inc.

	($ millions)
Total assets	2,962
Defined benefit	2,108
Total defined contribution	854
Profit-sharing	204
Thrift or savings	11
ESOP	639
Employer DB contributions	na
Benefit payments	na
Employer DC contributions	na
Internally managed assets:	
Total DB	1,845
Defined benefit asset mix:	
Stocks	25%
Fixed income	51%
Cash equivalents	8%
Real estate equity	9%
Other	7%

PROVIDENCE, R.I. — As of Sept. 30, Textron Inc.'s total employee benefit assets decreased 5.1% to $2.962 billion from $3.121 billion as of Oct. 31, 1989. Defined benefit assets decreased 9.1% during the same period, to $2.108 billion from $2.319 billion. Defined contribution assets increased 6.5%, to $854 billion from $802 billion.

Equity managers: Domestic — Sanford Bernstein; Delaware; and Wellington.

Real estate managers: Prudential.

Other managers: Advanced Technology Venture; Advent International; Amgo; Foothill Partners; MMG Patricoff; and T. Rowe Price.

The master trustee is Bankers Trust.

The key person overseeing the investment management of the fund is John D. Lemery, president of Textron Investment Management.

Trans World Airlines Inc.

	($ millions)
Total assets	2,282
Defined benefit	1,012
Total defined contribution	1,270
401(k)	181
ESOP	5
Other	1,084
Employer DB contributions	41
Benefit payments	38
Employer DC contributions	43
Internally managed assets:	
Total DB	617
Defined benefit asset mix:	
Stocks	34%
Fixed income	18%
Cash equivalents	40%
Real estate equity	2%
GICs/BICs	6%
Defined contribution asset mix:	
Other stock	52%
Fixed income	1%
Cash equivalents	16%
GICs/BICs	21%
Real estate	10%

KANSAS CITY, Mo. — As of Sept. 30, Trans World Airlines Inc.'s total employee benefit assets decreased 7.6% to $2.282 billion from $2.47 billion a year earlier. Defined benefit assets decreased 4.1% during the same period, to $1.012 billion from $1.055 billion. Defined contribution assets decreased 10.2%, to $1.27 billion from $1.415 billion.

Equity managers: Domestic — Estabrook; Federated Investment; Fidelity Investments; Fort Hill; Frontier; GAMCO; Investors Research; J.P. Morgan; McGlinn; Mellon Capital; Shields; State Street Bank; and Wells Fargo Nikko.

International — SBC; State Street Bank; Vanguard Group; and WorldInvest.

Fixed-income managers: Domestic — Estabrook; Fidelity Investments; Fort Hill; GAMCO; McGlinn; Shields; and Wells Fargo Nikko.

Real estate managers: Aetna; Citicorp; Coldwell Banker; INVESCO; J.P. Morgan; NCNB; State Street Bank; and TCW Realty.

GIC/BIC managers: Aetna; Boston Co.-Morley Capital; and PRIMCO.

The master trustee and global custodian is Boston Safe.

The key person overseeing the investment management of the fund is Gary Dilley, director-pension finance.

Travelers Insurance Cos.

	($ millions)
Total assets	1,980
Defined benefit	1,469
Total defined contribution	511
401(k)	447
Other	64
Employer DB contributions	46
Benefit payments	55
Employer DC contributions	12
Internally managed assets:	
Total DB	1,363
Total DC	511
Hedging devices used:	
Stock options	
Bond options	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	47%
Fixed income	11%
Real estate equity	4%
GICs/BICs	35%
Private placements	3%
Defined contribution asset mix:	
Company stock	25%
Other stock	5%
Fixed income	70%

HARTFORD, Conn. — Travelers Insurance Cos.' total employee benefit assets declined 4.6% to $1.98 billion from $2.075 billion a year earlier. Defined benefit assets declined 5.5% during the same period, to $1.469 billion from $1.554 billion. Defined contribution assets declined 1.9%, to $511 billion from $521 billion.

Equity managers: Domestic — TIMCO.

International — TIMCO, Dillon Read International.

Fixed-income managers: Domestic — Travelers Keystone.

International — TIMCO.

Real estate managers: Travelers Realty Investment.

Other manager: Travelers securities department.

The master trustee is Connecticut National Bank. The global custodian is

LOOKING FOR AN INTERNATIONAL MANAGER
WITH A PROVEN TRACK RECORD?
WE WOULD LIKE TO INTRODUCE YOU TO

CL CAPITAL MANAGEMENT

TOP QUARTILE ANNUALIZED PERFORMANCE
OVER THE LAST FOUR YEARS*

Long-term Value for the Institutional Investor

FOR FURTHER INFORMATION, PLEASE CONTACT

HUBERT ATKINSON
Chief Investment Officer
260 Interstate North Circle Atlanta, GA 30339 (404) 859-3488

ATLANTA SALES OFFICE
BOB GANNAWAY
(404) 256-0006

BOSTON SALES OFFICE
DON HARRINGTON
MARK YETMAN
(617) 423-0330

CHICAGO SALES OFFICE
(312) 993-9650

HOUSTON SALES OFFICE
ROB IVIE
(713) 622-1396

LOS ANGELES OFFICE
STEVE HIMBER
(213) 380-5800

PHILADELPHIA SALES OFFICE
STEVE LOIZEAUX
(215) 564-2667

*Year ending third-quarter performance for the International Common Stock Fund (offered under the Confederation Life Insurance Company managed fund contract) as reported by the Frank Russell Company (non-U.S. equity universe). This fund was previously managed by Confederation Life using the same investment approach and personnel. Past performance is no guarantee of future results.

A MEMBER OF THE CONFEDERATION LIFE GROUP OF COMPANIES
ATLANTA – TORONTO – LONDON

Morgan Guaranty, Zurich.

Key personnel overseeing the investment management of the fund are Thomas O. Thorsen, vice chairman and chief financial officer; Richard J. Shima, vice chairman and chief investment officer; and Thomas F. Keating, senior vice president.

TRW Inc.

	($ millions)
Total assets	2,783
Defined benefit	1,848
401(k)	935
Employer DB contributions	46
Benefit payments	140
Employer DC contributions	34
Internally managed assets:	
Total DB	108
Hedging devices used:	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	55.6%
Fixed income	36.3%
Cash equivalents	8.1%
Defined contribution asset mix:	
Company stock	41.3%
Other stock	17.5%
GICs/BICs	41.2%

CLEVELAND — As of Sept. 30, TRW Inc.'s total employee benefit assets decreased 10.1% to $2.783 billion from $3.096 billion a year earlier. Defined benefit assets decreased 12.1% during the same period, to $1.848 billion from $2.103 billion. Defined contribution assets decreased 5.8% to $935 million from $993 million.

Equity managers: Domestic — Alliance; Baring America; Sanford Bernstein; Campbell; Eagle, Investment Counselors of Maryland; Westwood; and Wilshire.

International — Baring Brothers; Ivory & Sime; and PanAgora.

Fixed-income managers: Domestic — Hoisington; MacKay-Shields; and PIMCO.

International — J.P. Morgan and Morgan-Grenfell.

The master trustee and global custodian is Boston Safe Deposit; the investment consultant is Callan.

Key personnel overseeing the investment management of the fund are Robert M. Hamje, president of TRW Investment Management Co., and Edward N. Button, vice president of TRW Investment.

U

Union Carbide Corp.

	($ millions)
Total assets	2,608
Defined benefit	1,944
Total defined contribution	664
Thrift or savings	447
401(k)	217
Employer DB contributions	53
Benefit payments	95
Employer DC contributions	na
Internally managed assets:	
Total DB	1,912
Total DC	634
Defined benefit asset mix:	
Stocks	20%
Fixed income	54%
Cash equivalents	14%
Real estate equity	3%
Mortgages	5%
Annuities	2%
Private placements	2%
Defined contribution asset mix:	
Company stock	12.7%
Other stock	4.5%
GICs/BICs	76%
Other	6.8%

DANBURY, Conn.— As of Sept. 30, Union Carbide Corp.'s total employee benefit assets decreased 3.2% to $2.608 billion from $2.693 billion a year earlier. Defined benefit assets decreased 7.2% during the same period, to $1.944 billion from $2.095 billion. Defined contribution assets increased 11%, to $664 million from $598 million.

Benefit Capital Management Corp., a subsidiary of Union Carbide, handles the management of the defined benefit assets.

Equity manager: Domestic — Fidelity Investments (defined contribution).

GIC manager: Met Life (defined contribution).

The master trustee is Manufacturers Hanover Trust.

Key personnel overseeing the investment management of the fund, all Benefit Capital executives, are Michael F. Hoben, president; and Robert Burstein and Lawrence R. Fuller, senior vice presidents.

Unisys Corp.

	($ millions)
Total assets	4,534
Defined benefit	2,811
401(k)	1,723
Employer DB contributions	15
Benefit payments	145
Employer DC contributions	46
Hedging devices used:	
Stock options	
Bond options	
Stock index futures	
Fixed-income futures	
Short selling	
Defined benefit asset mix:	
Stocks	48.5%
Fixed income	11.4%
Real estate equity	11.9%
BICs/GICs	6%
Other	22.2%
Defined contribution asset mix:	
Company stock	3.3%
Other stock	21.7%
Cash equivalents	5.1%
GICs/BICs	69.9%

BLUE BELL, Pa. — As of Sept. 30, Unisys Corp.'s total employee benefit assets decreased 9.7% to $4.534 billion from $5.022 billion a year earlier. Defined benefit assets decreased 12.3% during the same period, to $2.811 billion from $3.206 billion. Defined contribution assets decreased 5.1%, to $1.723 billion from $1.816 billion.

Equity managers: Domestic — Fred Alger; Baker, Nye; Bankers Trust; BEA; Chase; Concord; Geewax Terker; Independence Investment; Jacobs Levy; Lazard Freres; MTH Asset Management; Nicholas-Applegate; NWQ; Pacific Financial Research; PRIMECAP; Rosenberg; Thomson, Horstmann & Bryant; TIMCO; Twin Capital; United Capital; Walsh Greenwood; and Wells Fargo.

International — County Natwest; HD International; Mercator; Parametric; TIMCO; and Wellington.

Fixed-income managers: Domestic — Harris Trust and M.D. Sass.

Real estate managers: AMLI Southwest; Chemical Bank; Connecticut General; Coldwell Banker; Copley; GE Investment Realty; JMB; LaSalle; and RCB.

GIC managers: Aetna; Hancock; Metropolitan; and Travelers.

Venture capital: Abbott Capital; Amerindo; Blackstone; Carl Marks; GE Investments Hotel Partnership; Norton Partners; Olympus Private Placement Fund; Robertson Colman; T. Rowe Price; Recovery Equity Investors; and Ventures Trident.

The master trustee and the global custodian is Harris Trust; the investment consultant is Rogers, Casey.

David White, vice president-capital management and trust investment, oversees investment management of the fund.

United Airlines Inc.

	($ millions)
Total assets	4,000
Defined benefit	2,100
Total defined contribution	1,900
Thrift or savings	1,200
401(k)	700
Employer DB contributions	60
Benefit payments	85
Employer DC contributions	60
Defined benefit asset mix:	
Stocks	48%
Fixed income	43%
Cash equivalents	2%
Real estate equity	7%
Defined contribution asset mix:	
Other stock	27%
Fixed income	13%
Cash equivalents	60%

CHICAGO — As of Sept. 30, United Airlines Inc.'s total employee benefit assets increased 8.1% to $4 billion from $3.7 billion a year earlier. Defined benefit assets increased 5% during the same period, to $2.1 billion from $2 billion. Defined contribution assets increased 11.8%, to $1.9 billion from $1.7 billion.

Equity managers: Domestic — Cambiar; First Manhattan; Hotchkis and Wiley; Lincoln Capital; McCowan; Frank Russell Trust; Sit; and Weiss, Peck & Greer.

International — HD International and Hill Samuel.

Fixed-income managers: Domestic — Sanford Bernstein; W.R. Huff; J.P. Morgan; and PIMCO.

Real estate managers: LaSalle; PMRealty; and RREEF.

The master trustee and global custodian is National Bank of Detroit; the investment consultant is Frank Russell.

The key person overseeing the investment management of the fund is David J. Dykstra, director of pension assets.

The General Board of Pensions of the United Methodist Church

	($ millions)
Total assets	3,459
Defined benefit	1,729
Defined contribution	1,730
Employer DB contributions	0
Benefit payments	118
Employer DC contributions	187
Internally managed assets:	
Total DB	175
Hedging devices used:	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	54%
Fixed income	23%
Cash equivalents	10%
Real estate equity	4%
Mortgages	1%
GICs/BICs	8%
Defined contribution asset mix:	
Other stock	51%
Fixed income	25%
Cash equivalents	11%
GICs/BICs	8%
Real estate	5%

EVANSTON, Ill. — As of Sept. 30, The General Board of Pensions of the United Methodist Church's total employee benefit assets decreased 3% to $3.459 billion from $3.566 billion a year earlier. Defined benefit assets increased 9.8% during the same period, to $1.729 billion from $1.575 billion. Defined contribution assets, in a 403(b) plan, decreased 13.1%, to $1.73 billion from $1.991 billion.

Equity managers: Domestic — ANB; Ariel; Batterymarch; Capital Guardian; Columbus Circle; Delaware Investment; Fidelity Management; Franklin Research; INVESCO; Nicholas-Applegate; Olympic; Provident Investment Counsel; RCM Capital; and Westwood.

International — Capital Guardian.

Fixed-income managers: Domestic — ANB; CIGNA; Criterion; Delaware; Franklin; Lincoln Capital; Mellon Bond; and STW.

Real estate managers: CIGNA and JMB.

The master custodian and global custodian is Mellon; the investment consultant is Hotchkiss Associates.

Key personnel overseeing the investment management of the fund are F. Gale Whitson-Schmidt, chief financial officer; Diane Pinney, treasurer; and Mary Pat Kincaid, director-portfolio department.

UMWA Health & Retirement Funds

	($ millions)
Total assets	4,759
Defined benefit	4,735
401(k)	24
Employer DB contributions	78
Benefit payments	443
Employer DC contributions	0
Internally managed assets:	
Total DB	675
Hedging devices used:	
Stock options	
Bond options	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	41%
Fixed income	50%
Cash equivalents	6%
Real estate equity	3%
Defined contribution asset mix:	
Other stock	23%
Fixed income	8%
Cash equivalents	34%
GICs/BICs	22%
Balanced fund	13%

WASHINGTON — As of Sept. 30, the UMWA Health & Retirement Funds' total employee benefit assets decreased 10.2% to $4.759 billion from $5.3 billion a year earlier. Defined benefit assets decreased 8.9% during the same period, to $4.735 billion from $5.2 billion. Defined contribution assets increased 118.2%, to $24 million from $11 million.

Equity managers: Domestic — Argus Investors'; Barrow, Hanley, Mewhinney and Strauss; DFA; Dreman; J.W. Seligman; Lazard Freres; Loomis, Sayles; Scudder, Stevens & Clark; T. Rowe Price; Vanguard; and Wells Fargo.

Fixed-income managers: Criterion; Loomis, Sayles; J.P. Morgan; STW Fixed Income; and Scudder, Stevens & Clark.

Real estate managers: AEW; Goldman, Sachs; Metropolitan Life; RREEF; and TCW Realty.

Other managers: Calvert Group; Fidelity Investments; Prudential Asset; Putnam; and U.S. Trust.

The master trustee is Boston Safe.

The key person overseeing the investment management of the fund is Charles S. Stephens, director of investments.

United Nations Joint Staff Pension Fund

	($ millions)
Total assets	8,591
Defined benefit	8,591
Employer DB contributions	250
Benefit payments	387
Internally managed	8,591
Defined benefit asset mix:	
Stocks	37%
Fixed income	41%
Cash equivalents	10%
Real estate equity	12%

NEW YORK — As of Sept. 30, the United Nations Joint Staff Pension Fund's total assets increased 2.1% to $8.591 billion from $8.414 billion a year earlier. All assets are defined benefit and managed internally.

The trustee is the U.N. Secretary-General; the global custodian is Fiduciary Trust Co. International, which also provides global investment advice.

Key personnel overseeing the investment management of the fund are J. Richard Foran, representative of the secretary-general for investments; Henry L. Ouma, chief-investment management services; and Mauricio Rezende, investment officer-operations.

United Parcel Service of America Inc.

	($ millions)
Total assets	2,026
Defined benefit	967
Total defined contribution	1,059
Thrift or savings	902
401(k)	157
Employer DB contributions	90
Benefit payments	15
Employer DC contributions	31
Internally managed assets:	
Total DB	97
Total DC	138
Defined benefit asset mix:	
Stocks	39%
Fixed income	24%
Cash equivalents	18%
Real estate equity	1%
BICs/GICs	9%
Company assets	9%
Defined contribution asset mix:	
Company stock	11%
Other stock	14%
Fixed income	21%
Cash equivalents	22%
BICs/GICs	25%
Company assets	4%

GREENWICH, Conn. — As of Sept. 30, United Parcel Service of America Inc.'s total employee benefit assets increased 12.4% to $2.026 billion from $1.802 billion a year earlier. Defined benefit assets increased 6.5% during the same period, to $967 million from $908 million. Defined contribution assets increased 18.5% to $1.059 billion from $894 million.

Managers: Domestic — Sanford Bernstein; Connecticut National Bank; First Fidelity; Mitchell Hutchins; and J.P. Morgan.

The master trustees are Bankers Trust and State Street Bank.

Key personnel overseeing the investment management of the fund are Robert F. Markmann, investments manager, and Bruce Bissell, investments supervisor.

United Technologies Corp.

	($ millions)
Total assets	7,960
Defined benefit	5,400
Total defined contribution	2,560
Employer DB contributions	na
Benefit payments	na
Employer DC contributions	na
Hedging devices used:	
Stock options	
Bond options	
Stock index futures	
Fixed-income futures	

HARTFORD, Conn. — As of Sept. 30, United Technologies Corp.'s total employee benefit assets decreased 3.6% to $7.96 billion from $8.261 billion a year earlier. Defined benefit assets decreased 10.1% during the same period, to $5.4 billion from $6.005 billion. Defined contribution assets increased 13.5% to $2.56 billion from $2.256 billion.

The master trustee and global custodian is Citibank.

Key personnel overseeing the investment management of the fund are Michael J. Vrissis, James C. Goodridge and Robert J. Cepelak, pension investment managers.

United Telecommunications

	($ millions)
Total assets	1,588
Defined benefit	1,168
401(k)	420
Employer DB contributions	0
Benefit payments	26
Employer DC contributions	na

KANSAS CITY, Mo. — As of Sept. 30, United Telecommunications Inc.'s total employee benefit assets increased 6.1% to $1.588 billion from $1.497 billion a year earlier. Defined benefit assets decreased 5.3% during the same period, to $1.168 billion from $1.233 billion. Defined contribution assets increased 59.1% to $420 million from $264 million.

Investment managers: Barnett Banks; Brinson; Dillon, Read; DFA; Equitable Real Estate; Fidelity Management; Grantham, Mayo, Van Otterloo; Jennison; Loomis, Sayles; J.P. Morgan; NCNB; Northwestern National Life; PIMCO; T. Rowe Price; PRIMCO; Provident Investment; Sit; TCW Asset; Wall Street Associates; Well Fargo Nikko; and Westport Asset.

The master trustee is Northern Trust; the investment consultant is Frank Russell.

W.N. Searcy, pension trust officer, oversees investment management of the fund.

U S WEST Inc.

	($ millions)
Defined benefit assets*	7,998
Employer DB contributions	na
Benefit payments	na

**P&I estimate*

ENGLEWOOD, Colo. — As of Sept. 30, *P&I* estimates U S WEST Inc.'s defined benefit assets decreased an estimated 1.3% to $7.998 billion from the actual $8.1 billion reported as of Sept. 30, 1989. The estimate is based on the company's annual report.

USX Corp.

	($ millions)
Total assets	8,750
Defined benefit	8,380
Profit-sharing	370
Employer DB contribution	0
Benefit payments	940
Employer DC contributions	20
Internally managed assets:	
Total DB	8,380
Total DC	370
Defined benefit asset mix:	
Stocks	52.3%
Fixed income	31.6%
Cash equivalents	12.7%
Real estate equity	2.8%
Mortgages	0.4%

Other	6.2%
Defined contribution asset mix:	
Company stock	46%
Other stock	4%
Fixed income	11%
GICs/BICs	39%

PITTSBURGH — As of Sept. 30, USX Corp.'s total employee benefit assets decreased 10.9% to $8.75 billion from $9.825 billion a year earlier. Defined benefit assets decreased 11.8% during the same period, to $8.38 billion from $9.5 billion. Defined contribution assets increased 13.8%, to $370 million from $325 million.

All assets are managed internally.

The master custodians are J.P. Morgan and U.S. Trust.

Key personnel overseeing the investment management of the fund are Gary A. Glynn, president, and Peter C. Lincoln, vice president-investments, both of United States Steel and Carnegie Pension Fund.

Utah State Retirement Fund

	($ millions)
Total assets	3,850
Defined benefit	3,850
Employer DB contributions	140
Benefit payments	55
Internally managed assets	2,250
Defined benefit asset mix:	
Stocks	44%
Fixed income	38%
Cash equivalents	5.5%
Real estate equity	8%
Mortgages	1%
Other	3.5%

SALT LAKE CITY — As of Sept. 30, the Utah State Retirement Fund's total employee benefit assets decreased 1.5% to $3.85 billion from $3.908 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Atalanta/Sosnoff; DFA; J.W. Seligman; Smoot, Miller & Cheney; Value Line; and Wellington.

International — Baring and State Street Bank.

Real estate managers: Aetna; Alex. Brown; Equitable; JMB; Metric; and Sentinel.

The master custodian is Northern Trust; the investment consultants are Callan and SEI.

The key person overseeing the investment management of the fund is W. Dan Smith, investment officer.

V

Virginia Retirement System

	($ millions)
Total assets	10,687
Defined benefit	10,687
Employer DB contributions	874
Benefit payments	390
Internally managed assets	1,002
Hedging devices used:	
Stock options	
Bond options	
Stock index futures	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	50%
Fixed income	34%
Cash equivalents	8%
Real estate equity	4%
Alternative equity	4%

RICHMOND, Va. — As of Sept. 30, the Virginia Retirement System's total employee benefit assets increased 4.3% to $10.687 billion from $10.244 billion a year earlier. All are defined benefit assets.

Equity managers: Acadian; Ardsley Partners; Bankers Trust; Capital Growth; Concord; Corinthian; Davis, Weaver & Mendel; Delaware Investment; Fidelity Management; GAMCO; Geocapital; Hutson Management; IDS Advisory; Investment Research; Jacobs, Levy; Jundt/Capen; Lehman Ark; Lincoln Capital; Mellon Capital; Miller, Anderson; Negative Beta; Nicholas-Applegate; Pacific Financial; Rosenberg Institutional; Donald Smith; State Street Bank; and Tukman Capital.

Fixed-income managers: Sanford C. Bernstein; MacKay-Shields; Massachusetts Financial; Merganser; Security Capital; Sovran Capital; Western Asset.

Real estate managers: Equitable; LaSalle; J.P. Morgan; New England Mutual; Phoenix Mutual; Prudential Insurance; and Metropolitan Life.

The master custodian is Boston Safe Deposit; the investment consultants are Rogers, Casey and Pension Consulting Alliance.

Key personnel overseeing the investment management of the fund are Garry Allen, acting director of investments; Nancy Everett, assistant investment officer; and John McLaren, director of alternative investments.

W

Washington State Investment Board

	($ millions)
Total assets	12,839
Defined benefit	12,839
Employer DB contributions	na
Benefit payments	na
Internally managed assets	6,803
Hedging devices used:	
Stock options	
Stock index futures	
Defined benefit asset mix:	
Stocks	29.6%
Fixed income	26.9%
Cash equivalents	8%
Real estate equity	9.5%
Mortgages	8.6%
Oil & gas	0.9%
LBOs	8.7%
Three-way asset allocation	3.2%
Venture capital	[illegible]
Private placements	[illegible]

OLYMPIA, Wash. — As of Sept. 30, the Washington State Investment Board's total employee benefit assets increased 1.4% to $12.839 billion from $12.66 billion a year earlier. All assets are defined benefit.

Equity managers: Domestic — Columbia; Hotchkis and Wiley; Lord, Abbett; Mellon Capital; Smith & Co.; United Capital; and Wells Fargo.

Real estate managers: Centennial; Copley; Equitable; Pacific Trust; PMRealty; Quadrant; RREEF; Sentinel; UNICO; and Winmar.

The master trustee is Bank of New York; the investment consultant is Frank Russell.

Key personnel overseeing the investment management of the fund are David Weig, executive director; Greg Baarson, deputy director; and Marc Fovinci, senior investment officer.

Westinghouse Electric Co.

	($ millions)
Total assets	5,554
Defined benefit	3,519
401(k)	2,035
Employer DB contributions	100
Benefit payments	468
Employer DC contributions	61
Internally managed assets:	
Total DB	1,349
Hedging devices used:	
Stock index futures	
Short selling	
Defined benefit asset mix:	
Stocks	56%
Fixed income	24%
Cash equivalents	2%
Real estate equity	14%
Mortgages	4%
Defined contribution asset mix:	
Company stock	12%
Other stock	2%
GICs/BICs	86%

PITTSBURGH — As of Sept. 30, Westinghouse Electric Co.'s total employee benefit assets decreased 4.7% to $5.554 billion from $5.828 billion a year earlier. Defined benefit assets decreased 12.2% during the same period, to $3.519 billion from $4.007 billion. Defined contribution assets increased 11.8% to $2.035 billion from $1.821 billion.

The master trustee and global custodian is Mellon Bank; the investment consultant is Frank Russell.

Key personnel overseeing the investment management of the fund are Thomas G. Scannell, director-pension investments; and Joanne Welsh, manager-pension investments.

State of Wisconsin Investment Board

	($ millions)
Total assets	18,482
Defined benefit	18,482
Employer DB contributions	387
Benefit payments	564
Internally managed assets	17,790
Hedging devices used:	
Bond options	
Fixed-income futures	
Defined benefit asset mix:	
Stocks	44%
Fixed income	45%
Cash equivalents	7%
Real estate equity	3%
Mortgages	1%

MADISON, Wis. — As of Sept. 30, the State of Wisconsin Investment Board's total employee benefit assets decreased 7.7% to $18.482 billion from $20.033 billion a year earlier. All are defined benefit assets.

Equity managers: International — Capital Guardian; GE Investment; Mercator; and Morgan Stanley.

Fixed-income managers: International — Alliance Capital; Brinson Partners; Deutsche Bank; Morgan Grenfell; and Nomura.

The master custodian is Morgan Guaranty and the global custodian is Northern Trust.

Key personnel overseeing the investment management of the fund are Patricia Lipton, executive director, and James Severance, investment director.

The International Bank for Reconstruction and Development (World Bank)

	($ millions)
Total assets	3,171
Defined benefit	3,171
Employer DB contributions	50
Benefit payments	54
Hedging devices used:	
Stock options	
Defined benefit asset mix:	
Stocks	47%
Fixed income	32%
Cash equivalents	12%
Real estate equity	6%
Other	3%

WASHINGTON — As of Sept. 30, total employee assets of the International Bank for Reconstruction and Development (World Bank) decreased 3.7% to $3.171 billion from $3.292 billion a year earlier. All assets are defined benefit.

The master trustee is State Street Bank; the global custodian is Northern Trust; the investment consultant is Strategic Investment Partners.

Key personnel overseeing the investment management of the fund are Nestor V. Santiago, pension plan administrator; Kelda J. Caldwell, pension investment unit chief; and Anthony Albert, pension investment control officer.

X

Xerox Corp.

	($ millions)
Total assets	3,333
Defined benefit	2,287
Profit-sharing	1,046
Employer DB contributions	0
Benefit payments	na
Employer DC contributions	129
Hedging devices used:	
Stock index futures	
Defined benefit asset mix:	
Stocks	60.2%
Fixed income	11.3%
Cash equivalents	15.5%
Real estate equity	10.4%
Other	2.6%
Defined contribution asset mix:	
Other stock	14.4%
GICs/BICs	77.4%
Fixed income	2.1%
Cash equivalents	3.2%
Other	2.9%

STAMFORD, Conn. — As of Sept. 30, Xerox Corp.'s total employee benefit assets decreased 2.1% to $3.333 billion from $3.405 billion a year earlier.

As a result of Xerox's conversion to a cash balance plan, its defined benefit and defined contribution assets changed significantly — with defined benefit assets jumping to $2.287 billion, compared with $214 million the previous year, and defined contribution assets falling to $1.046 billion from $3.191 billion.

The master trustee and global custodian is State Street Bank; the investment consultants are Collins Associates and Frank Russell.

Key personnel overseeing the investment management of the fund are Robert R. Evans, assistant treasurer; Gerald J. Paolini, manager-trust investment strategy; Mary L. Cahill, manager-trust investments; and Toni S. Hanna, trust investment analyst.

Firm offers new global bond fund

BOSTON — Boston Safe Deposit and Trust Co. has launched the Global Short Term Fund, a pooled fixed-income fund.

The fund will invest in high-grade government and corporate securities, with a maturity of one year or less, from the world's major fixed-income markets. PanAgora Asset Management, which is partly owned by Boston Safe, will be the fund's investment adviser. The fund's objective is to return three percentage points more than U.S. Treasury Bills on an annual basis.

PanAgora officials have set a goal of 20 clients and $500 million in assets for the fund's first year. The Shearson Short-Term World Income Fund, a mutual fund with the same investment strategy also managed by PanAgora, was introduced to retail investors last August; by year end, it had more than $450 million in assets. ■

WHEN YOUR CAPITAL MARKETS
NEWS HAS TO BE ON THE

...do what other successful investment executives in corporations, financial institutions, government, educational institutions, private foundations and unions do...

SUBSCRIBE TO PENSIONS & INVESTMENTS

It makes good sense. The annual subscription rate for 26 issues is $135. On trial, of course.

To subscribe, use the subscription card in this issue. If it's missing, CALL TOLL FREE on

1-800-678-9595.

You can also write to:

Pensions&Investments
Circulation Department
965 E. Jefferson
Detroit, Michigan 48207

Alternatives

Continued from page 17

volved."

While interest in some alternative investments is stagnant, Mr. Feldman said there could be interest in some form of "conservative alternatives."

"One trend we will see is a resurgence of more conservative alternatives, such as option programs and portfolio insurance in some form," he said.

Doug Pategunas, principal at Ennis Knupp & Associates, Chicago, said the totals for the top 10 funds invested in venture capital and leveraged buy-outs "don't surprise me."

"Plan sponsors are pulling in their horns a little. Venture capital returns were off in the late 1980s, causing people to rethink their strategies. They are a little hesitant to invest in these areas, whether it will continue I don't know." said Mr. Pategunas.

He added, however, the venture capital area remains a viable investment alternative for larger plan sponsors.

GTE Corp., Stamford, Conn., increased its LBO investment by about $38 million to $181 million in 1990, while cutting its venture capital investment by $22 million, to $178 million.

John Carroll, president of GTE Investment Management Corp., said the venture capital total is somewhat misleading because a $100 million commitment was made late in 1990. He said GTE is committed to venture capital as an investment alternative over the long term even though "returns have struggled."

"We're upping our commitment because of its future prospects and because the asset class has been on its back for so long. It's an asset class you can't ignore. You have to believe there are some opportunities there."

Mr. Carroll said GTE views leveraged buy-outs in a different light, however. "LBOs topped out a couple of years ago and we have only modestly kept pace," he said. "We are committing less than is being returned to us" from existing deals.

He said GTE has invested in LBO funds with Forstmann Little & Co., New York, "because we know the deals and we know the type of deals they will do. . . . It is easy to make a case for exceptional opportunities for LBO funds that are not based on junk bonds."

Oil and gas investments, as might be expected, were down in 1990, and the outlook is confounding because of the uncertainty over oil prices because of the tensions in the Middle East.

The total investment in direct oil and gas deals by the 10 largest investors rose to $823 million in 1990 from $774 million in 1989.

Peter Keller, principal with the oil and gas investment firm of RPI Institutional Services Inc., New York, said direct investments in oil-related programs have all but halted since the Iraqi invasion of Kuwait in August.

"What we saw last year was some expansion of interest in oil and gas, but then it hit a brick wall in August. Any deals with an oil component, you can't sell the properties until there is some certainty on oil prices. It's a tough market until there is some resolution of what's going on in the Middle East," said Mr. Keller.

GTE saw its oil and gas portfolio increase to $107 million from $85 million last year. Mr. Carroll said aside from events in the Middle East, oil and gas is a good investment based on fundamentals and supply and demand factors over the long term.

He said GTE continues to invest in oil and gas "on an opportunistic basis."

The Minnesota State Board of Investment, St. Paul, oil and gas portfolio dropped $7 million to $89 million. A spokesman for the system said one deal was liquidated, but the Minnesota system remains committed to oil and gas and plans to make additional investments. ■

Foreign

Continued from page 17

national bonds rose 144% to $419 million, or 126% when market adjusted.

In the year ended in September, the Salomon Brothers World Government Bond Index rose 7.54%.

In the defined benefit area, the data revealed 14 new international investors. Among these were the Public Employees Retirement System of Mississippi and GenCorp Inc.

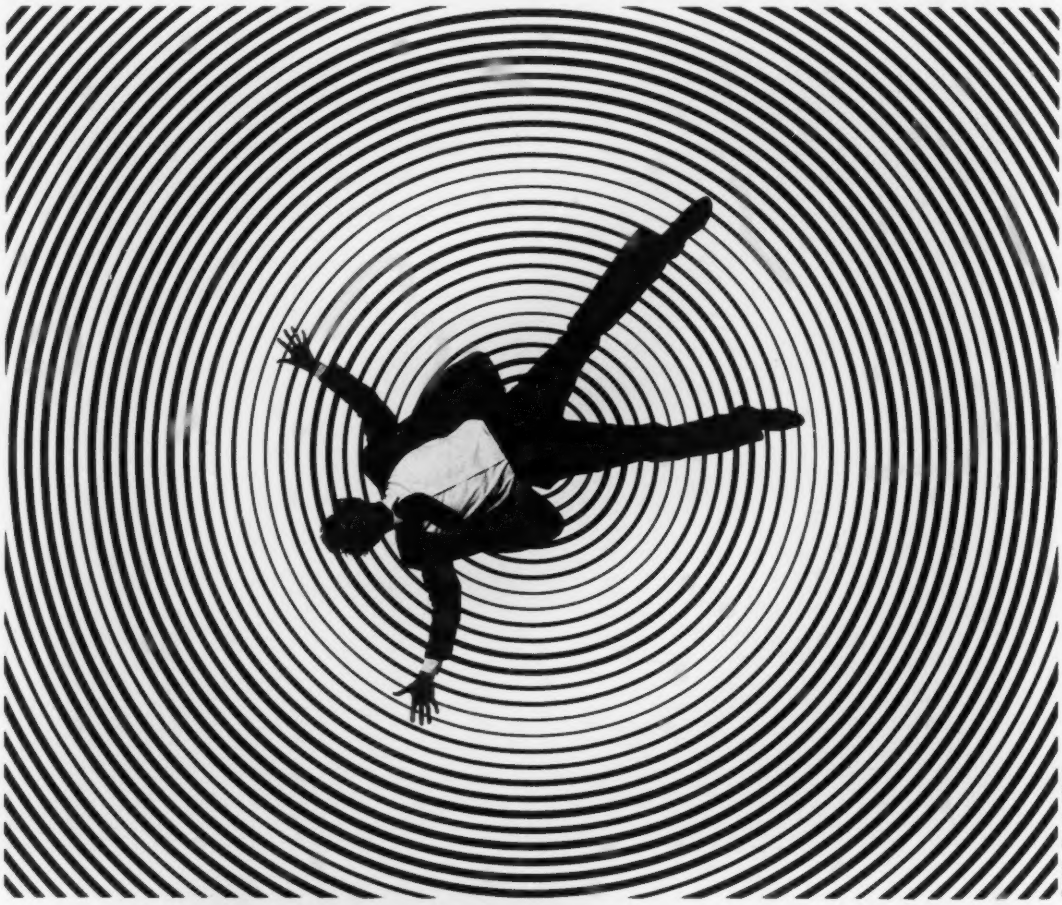
GenCorp's $1.3 billion plan Fairlawn, Ohio, last June hired managers for international equities and fixed income. As of September, the fund's foreign equities investments totaled $100 million, including $80 million in an EAFE-minus-Japan account managed by Bankers Trust Investment Management, London, and $20 million in a Japan-only account managed by J.P. Morgan Investment Management Inc., New York. The fund also selected Bankers Trust to manage its $107 million of international bonds, said Sina Baldwin, GenCorp's manager-investment analysis.

The increasingly thunderous march abroad by large public funds has been shaking the investment scene. By September, for instance, the California employees fund, which only inaugurated foreign investing in 1989, had catapulted to rank as the largest international pension fund investor.

In September, the California fund had $5.7 billion in international investments, of which $3.7 billion was equities and $2 billion was bonds. The next highest was the United Nations Joint Staff Pension Fund, New York, with almost $4.6 billion of international investments. The Teachers Insurance and Annuity Association — College Retirement Equities Fund ranked third overall and first among defined contribution plans with $4.2 billion.

In early January, DeWitt Bowman, chief investment officer of the California fund, said the international bond investing target of 4% of assets had been reached. But the fund still was pouring money into overseas equities to reach its 12% equities target. He said the system was funding foreign equities at a rate of "several hundred million dollars per month. It will probably (take) funding foreign equities through June to reach our target." ■

Pensions & Investments will take a look at the largest non-U.S. money managers Sept. 30.



© 1991, Chemical Bank

Our global custody services can keep you from feeling this way.

It's that unmistakable sensation of spinning out of control; uninformed about some critical detail regarding your investments. It's also a feeling that our clients are spared. We're Chemical Bank's Global Custody Group and we can give you unparalleled control over your cross-border investments. Our team of dedicated professionals sees to it that you are continually provided information about your portfolio from trade initiation to post-settlement. We'll also give you complete control over every trade from your personal computer with the ChemLink® cash and security information systems. Use them to monitor asset and currency positions, transfer funds or receive advice of corporate actions. Meanwhile, we'll be working behind the scenes to make certain no detail goes unnoticed. Call Ken Montgomery, Senior Vice President, at **(212) 820-4610**. Learn how our global custody services free you to concentrate on cross-border investing.

We make a difference by recognizing yours

CHEMICALBANK
Financial Services Group

PBGC

Continued from page 18

while stocks are being halved to 25% and real estate will be phased out.

As of Sept. 30, stocks had fallen to 33% of assets, while bonds were at 59%, and cash and real estate remained steady at 5% and 3%, respectively.

The structure of the PBGC's four funds is driving the agency into the unique investment approach. The agency has two "revolving funds," totaling $1.4 billion, which are required to be invested in Treasury securities only, although the agency hopes to get permission to invest in zero-coupon issues as well.

Of the $1.3 billion in the PBGC's two trust funds, composed of pension assets the agency has taken over, $600 million will be invested in bonds, but there are no restrictions on types of instruments that can be purchased.

But the desire to get the 15-year-plus duration for the overall bond portfolio means the smaller trust fund assets will have to be used to overlay the revolving fund assets. Managers could leverage the trust fund portfolio with financial futures.

The agency might hire one or two bond managers. If two bond managers are picked — which would diversify risk — each would have responsibility for half of the revolving fund and trust fund assets.

To be eligible for the contract, the PBGC is requiring managers to have experience in running a structured fixed-income portfolio with a duration of at least 10 years. This requirement raised questions among some of the managers attending the contract conference.

For example, John Maschoff, vice president of Washington Square Advisers, Chicago, asked whether a 25-year duration bond portfolio the firm runs for Ford Motor Co. would count, even though the portfolio is part of a larger portfolio with a much shorter duration.

Agency officials gave a discouraging response. "I think we need to limit the market to those who have operated in this field, to the extent that we can — recognizing it's a fairly limited number," Mr. Evans said.

Managers who have bid are believed to include NISA, Milwaukee; Goldman, Sachs Asset Management, New York; Lincoln Capital Management Co., Chicago; Brinson Partners Inc., Chicago; and J.P. Morgan Investment Management Inc., New York. In addition, the PBGC's existing bond managers — Pacific Investment Management Co., Newport Beach, Calif., and Morgan Stanley Asset Management, New York — are believed to be in contention for the contracts.

Measuring performance for the bond portfolio will be complex. The PBGC, an innovator in normalized benchmarks, might use a benchmark of two Treasury securities that would provide the duration compatible with the agency's liability stream, Stephen Nesbitt, a consultant with Wilshire Associates Inc., Santa Monica, Calif., told the bond managers.

After the bond hires are made, agency officials will turn to the stock. Half of the agency's equity allocation will remain in passive vehicles. State Street Bank & Trust Co., Boston, now runs a Standard & Poor's 500 Stock Index account, as well as serves as the agency's custodian bank. American National Bank & Trust Co., Chicago, runs an extended-market account for the PBGC.

That still leaves about $300 million in stocks, which the agency plans to dole out in $100 million chunks. As of Sept. 30, the PBGC's active equity managers were Chase Investors Management Corp., New York; Lazard Freres Asset Management, New York; Lehman-Ark Management Co., New York; and United Capital Management, Denver.

McCowan Associates Inc., New York, was dropped recently, as were the agency's three farm-team equity managers: Disciplined Investment Advisors Inc., Evanston, Ill.; Loomis, Sayles & Co. Inc., Pasadena, Calif.; and Nelson, Benson & Zellmer Inc., Denver.

In addition, the agency's real estate managers are JMB Institutional Realty Corp., Chicago; The RREEF Funds, San Francisco; and TCW Realty Advisors, Los Angeles.

Separately, on Oct. 5 the agency took over $1.4 billion in Eastern Air Lines pension assets, which is being managed separately in the PBGC/Eastern Air Lines Settlement Trust. ■

Managers

Continued from page 18

sistent discipline, something they can identify with and understand and they look for managers who stick by their guns."

While opinions differ on whether the trend toward indexing has peaked, index managers were well represented among both domestic equity and fixed-income managers.

Patricia Dunn, chief investment officer at Wells Fargo Nikko, said the firm's good showing "reflects increasing and sustained use of structured investment strategies by U.S. institutional investors."

"It reflects the fact that index funds have performed reliably and have become a standard element in the way plans are managed," she said.

Wyatt's Mr. Schneider said that while indexing "in terms of new business hasn't see a slowdown yet," he believes such a slowdown is coming.

"I'd expect to see some trending downward or tapering off. From a style standpoint, we may see indexing not performing as well now as it has historically."

Index managers also were well represented among the top domestic bond managers, where Pacific Investment Management Co., Newport Beach, Calif., finished on top with 25 mentions, followed closely by J.P. Morgan with 24.

Lincoln Capital Management Co., Chicago, took the largest jump among bond managers from the past year's survey rising to a tie for fourth from eighth place.

Parker Hall III, Lincoln's president and chief investment officer, said Lincoln "has made unusual forward strides in enhanced bond index funds" during the past two years "through the merger of high technology multifactor models. This is an area of major interest and thrust at Lincoln."

Paul McCann, chief investment officer at Mellon Bond Associates, which tied for third place in domestic bonds, said Mellon's growth has been reflected in all areas — active, immunized and indexed bonds as well as in the short-term area.

"We have been steadily bringing in new business in the last couple of years and . . . our major growth in that period has been in bond indexing and short term," he said.

Mr. McCann said the growth in bond indexing "absolutely" has not peaked and "still has a ways to go."

Among international and global managers, Capital Guardian Trust Co., Los Angeles, switched places with State Street Bank & Trust Co., Boston, to move into first with 17 mentions. State Street tied for second with Baring International Investment Ltd., London, at 15 mentions.

John Seiter, senior vice president at Capital Guardian, said the firm's standing "probably reflects the fact that Capital Guardian has been actively involved in international markets on a variety of levels since the mid-1950s."

Mr. Seiter said Capital Guardian has a global presence with offices in nine cities around the world and bases its investments on global research. "All these things are the result of a very large global research effort. We are a true bottom-up stock picker by nature," he said.

Among realty managers, Equitable Real Estate Investment Management Inc., Atlanta, moved up two places to rank first, with 31 mentions, followed by JMB Institutional Realty Corp., Chicago, with 29.

George Puskar, chief investment officer, said Equitable's prominent listing among large plan sponsors "reflects well on our diversified product mix from the real estate standpoint in terms of our large open-end fund (and) a diversified set of closed-end vehicles that meet most objectives in terms of real estate and investment strategies."

Mr. Puskar said real estate investments have been tarnished by the visibility of problems associated with the savings and loan and banking industry and "the connection is not there" in terms of institutional commercial real estate investments.

"It (real estate) got too popular too soon . . . but I do think U.S. pension funds have generally fared better than other groups such as S&Ls and banks. We tell people they shouldn't lose sight of the fact that real estate is a very large and important segment of the U.S. economy." ■

Less stock means more for nation's DC plans

By Curtis Vosti

Defined contribution plans, with generally lower allocations to equities and higher allocations to fixed investments, outpaced the growth of defined benefit plans.

Led by additions to or implementations of employee stock ownership plans and companies with large percentages of plan assets in their own stock, defined contribution plans among the Top 1,000 employee benefit plans grew 2.8% for the year ended Sept. 30, while defined benefit plan assets dropped 3% in the same period.

Firms such as ITT Corp., Phillips Petroleum Co., Mobil Oil Corp. and PPG Industries Inc. all reported defined contribution asset growth from ESOPs.

Among 11 companies for which company stock made up more than 50% of assets in their largest defined contribution plan, some — like Abbott Laboratories, Pacific Gas & Electric Co. and Atlantic Richfield Co. — reported their stock value grow appreciably in the 12 months. The 11 increased their defined contribution assets an aggregate 18.2% from a year earlier, despite a 3.7% drop in Caterpillar Inc.'s $602 million in defined contribution assets. Its largest defined contribution plan is all in company stock.

Less $387 million in contributions, the 11 plans still grew an aggregate 15%, far above the rate for defined contribution growth among all plans in the Top 1,000.

For the Top 1,000 plans, those with defined contribution assets grew an aggregate 4.8%, to $392 billion, while defined benefit assets among the Top 1,000 declined 0.9%, to $1.467 trillion.

Defined contribution plans of the companies in the Top 1,000 had 39.8% in stocks (their own and others), while defined benefit plans in the same group had 43.6%. (Companies with more than one defined contribution plan were asked for the asset mix of the largest fund only.)

The defined contribution plans had 45.3% in fixed income and guaranteed investments; defined benefit plans had 39.8%.

For the year ended Sept. 30, the Standard & Poor's 500 Stock Index returned 9.35%; the Shearson Lehman Government/Corporate Bond Index gained 6.75%.

In 1990, $9.1 billion was contributed to defined contribution plans among the top 200 employee benefit plans, compared with $9.2 billion a year earlier. Defined benefit contributions in the same period rose to $44 billion from $41.1 billion. ■

Funds own 1% of junk bonds

By Marlene Givant Star

Twenty-one of the biggest pension funds in the country invest $2.7 billion in junk bonds, accounting for 1% of the troubled market.

But that number is understated because some funds do not have a figure on junk holdings while others just declined to provide their junk totals.

Still, the *Pensions & Investments* list is the first published grouping of pension funds holding non-investment-grade bonds, revealing a figure that has eluded even the Commerce Department, which compiles figures on the flow of funds to virtually all asset classes.

The high-yield market had its worst performance ever in 1990 returning −4.24%, according to the Merrill Lynch High Yield Securities Composite Index, as junk bond kingpin Drexel Burnham Lambert filed for bankruptcy protection, and leveraged buyouts and other junk-financed companies cratered under the burden of high interest payments.

The survey seems to show pension funds invest less in junk than many people think, even though the figures are understated. For instance General Motors Corp., a known junk investor, did not disclose its holdings.

***P&I's* 1% figure is in sharp contrast with Salomon Brothers Inc.'s June 30 estimate that U.S. pension funds represent 14% of the public junk market.**

Joseph Bencivenga, director and manager of high-yield research at Salomon Brothers, said Salomon estimates total pension fund holdings in junk bonds at about $20 billion. Included in the figure are unrated securities — many private placements — that should be considered high yield; a recent spate of investment-grade securities downgraded to speculative; and investment-grade bonds trading at very high yields.

"These are all wild guesses," Mr. Bencivenga said, "The figure is very subjective, based on available information plus conjecture."

Corporate pension funds dominate the list of junk investors. J.C. Penney is the biggest junk bond investor on the list with $535 million, followed by Textron Inc. with $362 million, Allied-Signal Inc. with $280 million and Pacific Telesis Group with $250 million.

Allied-Signal, Morristown, N.J., an investor in junk bonds since 1984, is sitting tight for 1991. "We're comfortable where we are. There continues to be some values to be found, but we don't believe this is a time to be increasing exposure" given the current recession, said Jay Burden, manager of fixed-income investments.

He added, "on a relative basis we're definitely pleased with our managers' performance." While some holdings are undergoing restructurings, those situations represent "a very small percentage of the portfolio," Mr. Burden said.

The $9 billion PacTel defined benefit fund, San Francisco, boosted its commitment to junk at the end of 1989 (*P&I*, April 16).

Among public funds, the biggest investor is the Illinois State Board of Investment, but Larry G. Darlington, bond manager, declined to comment on the investments, less than half of which are managed internally.

Under the State of Connecticut Trust Funds' guidelines, 90% of bonds must be investment grade or better, according to Terry Helming, investment officer-fixed income. The fund, with $150 million in junk bonds as of Sept. 30, has one outside manager specializing in emerging credits that may hold junk bonds. The in-house portfolio, representing 40% of the fund's $2 billion in domestic marketable fixed income, also must be investment grade.

Mideast

Continued from page 1

reported Richard Garland, vice president. The markets' initial eurphoria over the war news "is hype," he said Jan. 17. He anticipated markets would soon "come back to (economic) reality."

Robert Whitmore, managing director of WorldInvest Ltd., London, said Jan. 17 his firm had not reacted to the markets' run-ups. "It would not be our style" to react to volatile markets, he said. "In this environment it's appropriate to look through the Middle East crisis . . . to fundamental influences."

At General Electric Investment Corp., Gene Bolton, senior vice president-equity portfolios, and Art Bahr, executive vice president-equities, said they and their staffs would put even more time into thinking of better ways to assess the complex risks associated with international investing. They cited the two-thirds of GEIC's portfolio invested in global companies as well as the portfolio's other international holdings.

That doesn't mean GEIC, which manages more than $23 billion for General Electric Co. and other institutional investors, will reduce its commitment to expanding international investments.

Oregon State Treasurer Tony Meeker, who oversees the $9.9 billion Oregon Public Employes' Retirement System, another big international investor, said there's "a big temptation to withdraw" from international investing. But he said that would be a mistake. Oregon will continue to expand its international holdings — $1.1 billion in equities — to capture the growth and value opportunities he sees outside the United States.

Emerging markets investing, a relatively new twist in the international arena, might be hurt by the turn of world events.

"I think people will look twice at emerging markets — or at least they should," said Thomas W. Smith, political economist at Yamaichi Research Institute, New York. "There may be military risks or political risks not readily apparent to the average business person or microeconomist." After all, he said, "Saddam Hussein managed to surprise everyone with his attack" on Kuwait.

The more than $8 billion Tennessee Consolidated Retirement System isn't an emerging markets investor, but it did factor Iraq's invasion of Kuwait into its strategy for its $700 million invested internationally. While a global recession remains the more important influence on stock and bond prices, Iraq's action "was a catalyst" for this. "It probably made the recession in the U.S. and the U.K. worse than otherwise because people cancelled big capital spending or investing decisions," said Roy Wellington, Tennessee's international portfolio manager.

While focused on economic issues, Tennessee did find opportunity this past year to refine its investing because of the Middle East tension. "I did buy a few oil stocks and shorten the bond portfolio — moves you could attribute to Iraq," Mr. Wellington said.

Immediate reactions among U.S. investors to the Persian Gulf situation involved adjusting portfolios, either to take advantage of investment opportunities or to wait out developments by raising cash holdings. Investors cited a range of crisis-related strategies, including buying U.S. oil and defense industry stocks and using complex hedging techniques.

Although many institutional investors said they came into the gulf crisis with relatively high cash positions after pulling back from the volatile stock markets, several short-term money managers report seeing a flight to cash. Some managers said they have picked up new accounts in recent weeks as the threat of a Mideast war and troubles in the Soviet Union grew.

Dave Raulston, principal with Trinity Capital Advisors, Charlotte, N.C., said he is seeing "a great amount of cash coming out of the equity and bond markets to the short-term markets."

Mr. Raulston said a short war in the Mideast "would not be too damaging to the market. War is actually good for the short-term markets since it causes people to focus their attention on quality and liquidity."

Alan Seidner, president and chief investment officer of the Alan G. Seidner Co., Pasadena, Calif., said "the long and the short of it is that there is definitely a flight to quality. We see clients edgy about holding issues of companies which might be affected by recession."

Jeff Schoenfeld, manager-liquidity funds investment group at Brown Brothers Harriman & Co., New York, said "absolutely" the flight to quality is under way, largely because of the conflict and the effect on financial markets.

SEI Capital Resources Co., a Wayne, Pa., investment research and consulting firm, is advising investors not to reduce equity exposure based on the hostilities in the Persian Gulf. Equities have been superior performers through all prior conflicts this century. To avoid them now is a market timing decision, which, studies have shown, has a 70% chance of being incorrect, SEI said in a report to clients.

Recognizing that the characteristics of prior conflicts differ sharply from one another and from Operation Desert Storm, SEI said its analysis indicates no compelling reason to alter asset allocation strategies at this time. A synthesis of the data for World Wars I and II, the Korean War, and the Vietnam War found that even though real returns for stocks, bonds, and Treasury bills were significantly below long-term averages, common stock real returns exceeded real bond returns by 5.4% a year.

The firm noted there were many other economic and political forces affecting the capital markets during these conflicts and found markets tended to respond to the anticipated economic impact of a war rather than directly to the war itself.

In line with their long-term investment philosophy, most pension funds, money managers and other institutional investors interviewed by *Pensions & Investments* were not making significant changes in asset allocation or investment strategy.

DeWitt Bowman, chief investment officer of the $54 billion California Public Employees' Retirement System, said the Persian Gulf situation hasn't affected the pension fund's investment or allocation strategy because its long-term perspective guides such decisions.

John Carroll, president of GTE Investment Management Corp., Stamford, Conn., said the gulf war presents a classic dilemma for institutional investors ruled by a long-term perspective. "One of the real problems with a situation like this is when you know this will have a short-term but compelling impact on the market and you have a longer-term investment focus. It doesn't make sense for a pension fund to react quickly and shift assets," he said. ▪

Reporter Fred Williams contributed to this story.

Top 200

Continued from page 1

dropped 1% to $1.416 trillion from $1.431 trillion. Top 200 defined benefit assets fell 3% to $1.124 trillion from $1.16 trillion; defined contribution assets rose 2.8% to $272.6 billion from $265.3 billion. Again, defined benefit plans had a higher equity exposure — 43.4% — than defined contribution plans, with 38.7%.

Equity market losses were offset somewhat by gains from other asset classes. The Shearson Lehman Brothers Government/Corporate Bond Index was up 6.8% for the year, while 90-day Treasury Bills returned 8.4%. Rates on five-year guaranteed investment contracts hovered around 9%.

Sponsors are reaping the benefits of diversification, said Ronald D. Peyton, president of Callan Associates Inc., San Francisco. "It really underscores that the best defense is diversification — and it's a pretty good offense too."

Foreign investment continued to be the diversification of choice among the largest 200 plan sponsors. International equities in defined benefit plans grew 6.1% to $34.7 billion from $32.7 billion, despite the 27.4% EAFE drop; adjusted for the market, international equity growth was 46%. International bonds grew 65.6%, to $10.1 billion from $6.1 billion (*see story on page 17*).

Defined contribution plans have been slower to go into international, but their allocations have increased. Among the Top 200 sponsors, defined contribution assets invested in international equities decreased 1.9%, to $5 billion from $5.1 billion; with market adjustment, however, that comes out to a 38.8% increase. The allocation to international bonds doubled to $400 million.

Don Brackey, principal of William M. Mercer Asset Planning Inc., Chicago, noted the attraction of foreign investing is not only diversification, but also because foreign markets are becoming an increasingly large percentage of the investible equity universe.

Mr. Peyton predicted pension asset growth will resume; he looks for the equity markets to come back and to keep pension funds' long-term returns running two to four percentage points a year ahead of inflation.

Mr. Brackey declined to make projections for the stock market in general, but said the gap between returns on small-capitalization and large capitalization stocks might narrow.

Both consultants said the recent market slump might put upward pressure on contribution rates, although actuarial valuation methods usually work against great changes in contributions.

In 1990, $44 billion in benefits were paid by the Top 200 defined benefit plans, while contributions were $31.1 billion. This is the third consecutive year benefits have outstripped contributions; in 1989, the benefit figure was $41.1 billion, while contributions were $30.7 billion.

Other findings show the Top 200 defined benefit plans' had $137.4 billion in stock index funds, a drop of 11.5% — a figure that falls between returns for the S&P 500 and Wilshire 5000. Bond index funds grew 19.7% to $66.3 billion, well ahead of market growth.

Real estate equity assets among these plans grew 14.6% to $50.1 billion despite a so-so year for real estate, with average returns between 5% and 6%. Mortgages swelled 43.1% to $23.9 billion. Dedicated and immunized bond portfolios, a popular investment a few years ago, dropped 22% to $26.6 billion.

Among defined contribution plans in the Top 200, the percentage of assets in GICs and BICs was 34.7%, up from 31.6% the previous year and outstripping the 22.6% allocation to company stock and the 16.1% in other stock. These allocations are based on the sponsors' largest defined contribution plans. ▪

Funds

Continued from page 3

1993, Mr. Lyford said.

The retirement system's board of trustees is considering a court challenge and the Legislature is unlikely to endorse the governor's plan. State lawmakers repeatedly have rejected proposals involving deferrals of pension fund contributions to balance the budget.

In addition, Gov. McKernan is proposing to delay the retirement age to 62 instead of 60 and to increase employee contributions.

Steve Crouse, director of government relations for the Maine Teachers Association, said that within the next couple of weeks a new budget plan will be designed that doesn't include borrowing from the pension fund. If that plan is approved, the governor's order would be repealed.

The teachers' pension plan, part of the state system, is significantly underfunded, Mr. Crouse said. The teachers' portion of the assets amounts to $667 million; accrued liabilities are $1.5 billion, he said. With the contribution deferral, the system's actuary, Milliman & Robertson, estimates the funded ratio will drop to 39.4% from 44%.

In Virginia, the question is whether state lawmakers will agree to give up rights to the RF&P stock. There is a historical relationship between the state and RF&P, a Richmond company that owns the Richmond, Fredericksburg and Potomac Railroad Co. The pension fund owns more than 20% of RF&P.

Current law allows the state system to transfer back to the state the shares of RF&P at book value and the state to return them to the system at the new market price. Three such transfers have taken place, resulting in an $89 million gain for the state.

Under the new proposal, the transfer mechanism would be eliminated, according to Mark Finn, chairman of the fund's investment committee and a member of the board of trustees. The Legislature will be asked to cede title of the shares to the pension fund.

In exchange, the state will be compensated based on a formula that recognizes a spread between the current stock price of $28 per share and $34.50 per share, which is what the system paid for some large blocks of stock it has purchased on the open market during the past year.

Based on that formula the state would get about $22 million. It's too early to tell how state lawmakers will react. The governor supports the plan.

In New York, Gov. Mario Cuomo's State of the State address Jan. 9 briefly touched on plans first proposed in autumn to raise $500 million from institutions to provide private debt and equity capital to small- and mid-size New York companies.

"It will not be a subsidy; investment returns will be market returns," said Lee Smith, executive director of the New York Industrial Cooperation Council, a government advisory group. He hopes the fund will be up and running by summer.

New York City Mayor Dinkins wants to raise the return assumption for the New York City pension fund to 9% from 8.25% to help pay for a 5% raise for city workers. ▪

Reporter Trudy Ring contributed to this story.

If Your Success Depends on Fast, Accurate Performance Measurement,

then PIPER/PIPER+'s tables, charts & analysis are for you.

PIPER provides performance data on 900 bank and insurance company pooled fund performance in equities, fixed-income, special equities and real estate. It includes figures for over 1,000 funds with assets totalling more than $275 billion.

PIPER+, adds performance data on 850 independent investment managers to **PIPER**. With **PIPER+** you'll receive all **PIPER** data and information on an additional 900 funds with assets totalling over $165 billion.

For each fund, you'll receive quarterly tables displaying annual and annualized rates of return, fund characteristics and assets under management. Account size, basis for returns, investment style, asset allocation and maturity distribution are also included.

Important calculations like standard deviation, alpha, beta, and R-squared measure risk/reward trade-offs for each account or fund. Floating bar charts display quartile distributions.

PIPER/PIPER+

Call Carol Gary at (313) 446-0421
for more information, sample pages, and diskette.